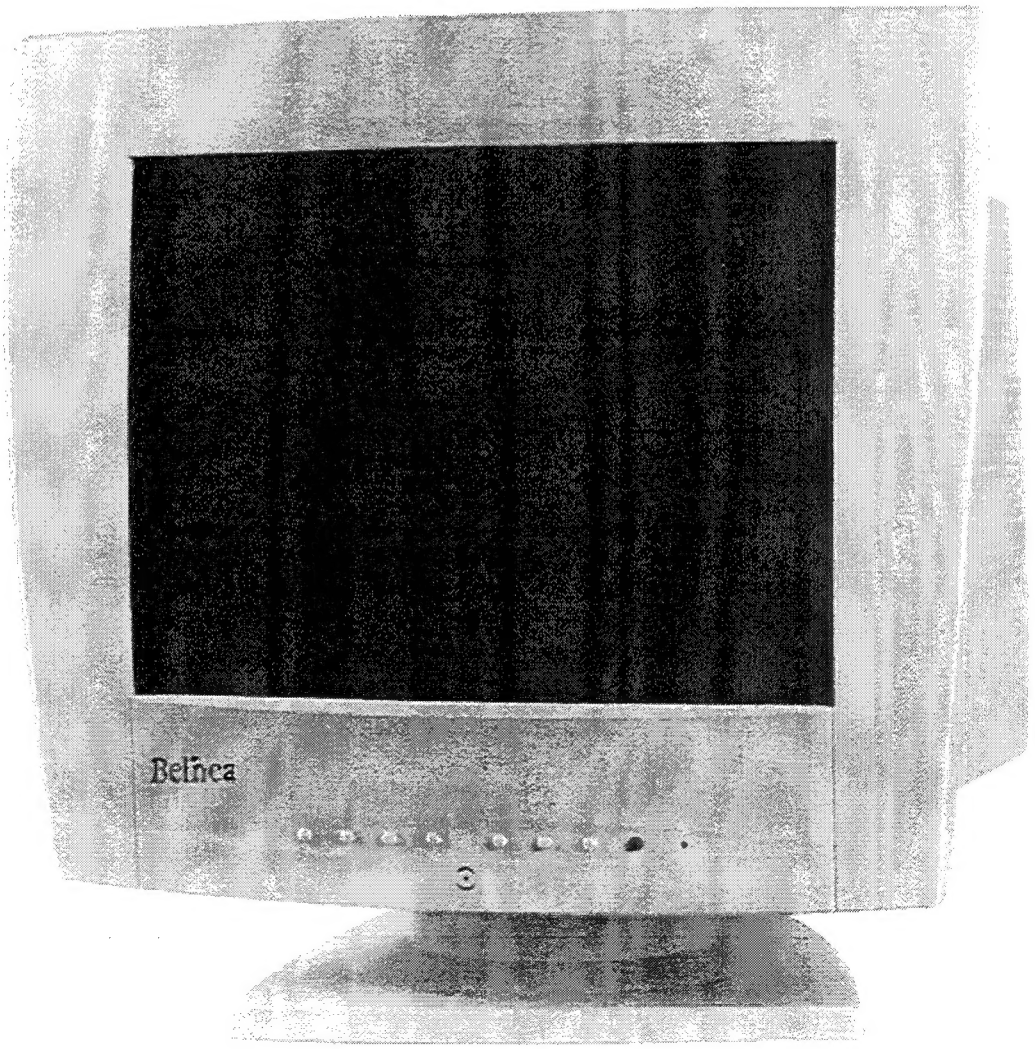
# Color Monitor
# Service Manual



# DISASSEMBLY INSTRUCTIONS

**CABINET BACK REMOVE (Figure 3)**

1. Remove the screws located on the back cover of the monitor bottom.
2. Gently slide the rear cover backwards until free of the monitor chassis.

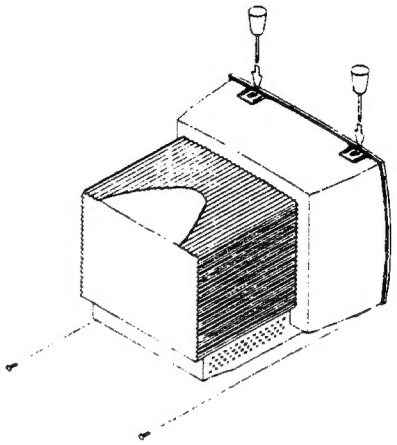


**Figure 3**

**MAIN PCB REMOVAL (Figure 4)**

1. Discharge the residual high voltage from the CRT Anode through a 100KΩ resister to the flyback Transformer mounting bracket.
2. Remove the Anode Cap from the CRT.
3. Remove all connectors and jacks from the Main PCB.
4. Gently slide the Main PCB backwards until free of the mounting brackets. Be careful not to damage the switches and control shafts.

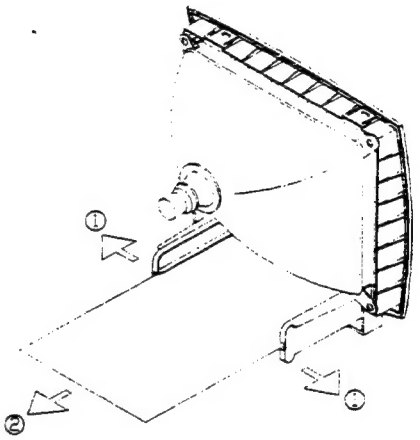



**Figure 4**

**CRT REMOVAL (Figure 5)**

1. Place the monitor face down on a soft surface.
2. Remove the CRT and place it on a soft surface.

**NOTE:** Do not move the deflection yoke and magnet assembly attached to the CRT neck. Handle these assembly carefully to avoid damaging them.

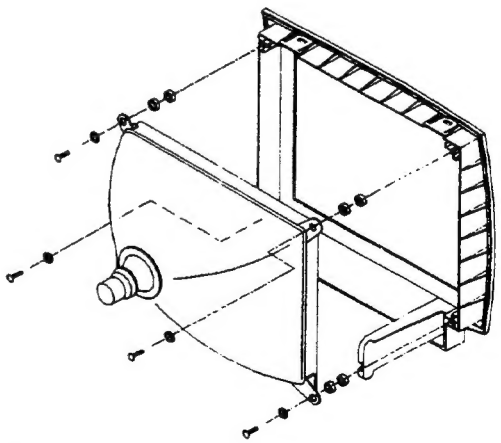


**Figure 5**

# SPECIFICATIONS

| | | |
|---|---|---|
| • Picture Tube: | Visible Size | : 17" diagonal |
| | Deflection | : 90 degree deflection |
| | Dot Pitch | : 0.28mm |
| | Phosphor | : P22 |
| • Input Signal: | Video | : Analog |
| | Sync | : Separate TTL level |
| • Scanning Frequency: | Horizontal | : 30 - 68 KHz |
| | Vertical | : 47 - 120 Hz |
| • Display Area: | Horizontal | : 300 ± 5 mm (STANDARD MODE) |
| | Vertical | : 225 ± 5 mm |
| • Bandwidth: | 85 MHz ( -3dB ) | |
| • Resolution: | 1280 x 1024/60 Hz(NI) | |
| • Power Source: | 100 to 240 Vac 60/50 Hz | |
| • Power Consumption: | 120 W ( MAX ) | |
| • Input Connector: | D-15 PIN | |
| • Display Color: | Limited only by the VGA Card | |
| • Front Control: | 8 Tack SW | |
| • Rear Control: | Power SW | |
| • Environment: | Operating Temperature | : 0°C to 40°C |
| | Operating Humidity | : 20% to 80% |
| | Nonoperating Temperature | : -20°C to 65°C |
| | Nonoperating Humidity | : 10% to 85% |
| • Dimensions: | 426mm(W)x443mm(H)x425mm(D)(With Base) | |
| • Weight: | Approx. 17 Kgs(NET) | |

# LOCATION OF CONTROLS

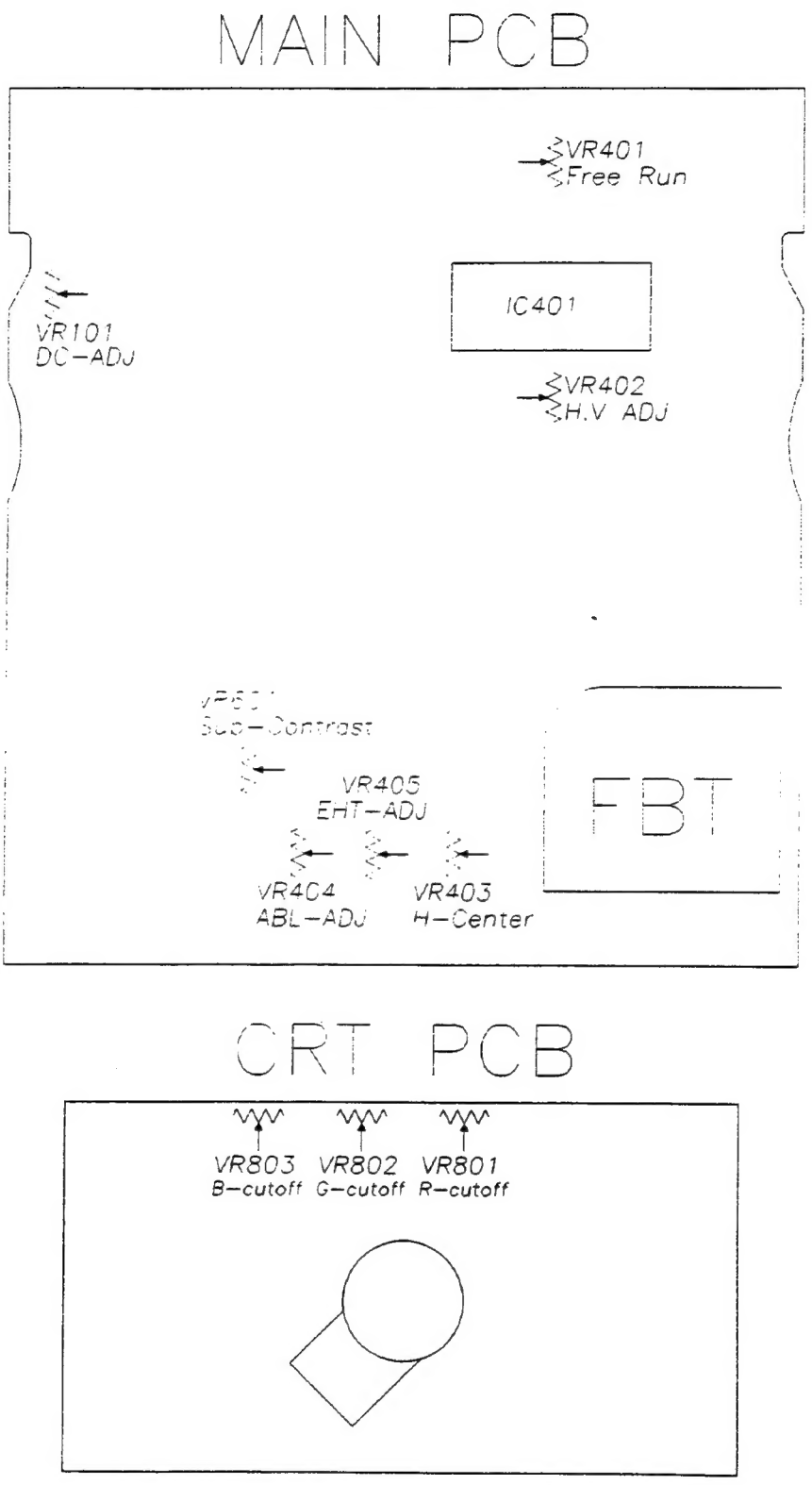



**Figure 6**

# THEORY OF OPERATION

1. VIDEO AND OSD(On Screen Display) AMPLIFIER
   IC601 (LM1281) is a full feature video amplifier with OSD input.
   Pin 1, 2, 3 is R, G, B OSD input.
   Pin 5, 8, 11 is R, G, B video input.
   Pin 23, 20, 18 is R, G, B video output.
   The video signal from IC output is fed into the cascade-type video power amplifier.

2. DEFLECTION PROCESS AND HIGH-VOLTAGE GENERATION CIRCUIT
   IC401 (TDA9103) is to control all the functions related to the horizontal and vertical deflection in a multimodes monitor. It's main functions are:
   Positive or Negative sync polarities.
   Auto-sync horizontal processing.
   Auto-sync vertical processing.
   East/West signal processing block.
   H-PLL lock/unlock identification.
   Safety blanking output.
   T401, Q402, Q403, T403, IC401, C458, C459, C460, D415,D416 are used for high-voltage generation output.

3. VERTICAL DEFLECTION OUTPUT CIRCUIT
   IC301 (TDA8172) is a TV vertical deflection output circuit. It's main function are:
   Power amplifier.
   Flyback generator.
   Thermal protection.

4. MONITOR ON SCREEN DISPLAY
   IC204 (XC141540 or MTV004) is a micro controller unit to allow colored symbols or characters to be displayed onto monitor screen.

5. MICRO-CONTROLLER
   IC201 (68P639A) is an HCMOS micro-controller unit with dedicated peripherals for TV and Monitor applications. It's main function are:
   Include Run, Wait, and Stop Modes.
   8Kx8 ROM, 256x8 RAM
   Sync Processor for video timing analysis
   Watchdog for system reliability and integrity.
   12 8-bit PWM/BRM Digital to Analog outputs.

6. SWITCHING POWER SUPPLY
   AC power is rectified by D101, then filtered by C107.
   Power is transferred by T101 to the secondary circuit.
   IC101 and IC404 control and stabilize the output voltage.
   VR101 adjusts the output voltage.
   VR402 adjusts the DC to DC output voltage.
   Q102 is the over voltage protector.

color.)

5. Press + or — to adjust Vertical size = 225 ± 5 mm.
6. Set Contrast to MIN.
7. Set Brightness to make raster = 0 FL.
8. Connect Digital Voltmeter between IC404 pin 1 and GND.
9. Turning VR405 and checking $V_{TP3}$ = 9.0 ± 0.2$V_{DC}$.

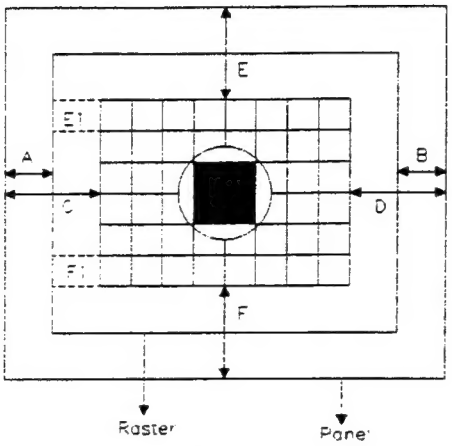



**Figure 7**

(6) MODE 13 (64 KHz) CHECK

1. X-RAY test: short D421 to check X-RAY circuit (screen shut down).
2. Adjust VR403 let A-B= 0 ± 1 mm (See Fig 7).

(7) DYNAMIC FOCUS CHECK

1. Connect Scope between FBT PIN 12 and GND.
2. Check Vertical Frequency Pallabola wave = 150 Vpp ± 20 Vpp.
3. Check Horizontal Frequency Pallabola wave = 380 Vpp ± 100 Vpp.

(8) VERTICAL SIZE ADJUSTMENT

1. Set Video Signal Generator to MODE 1 (Crosshatch Pattern) and input to monitor. (Mode may be changed 1 to 13 in sequence)
2. Repeatedly press < or > key to select Vertical size. (The ◘ symbol changes color.)
3. Press + or — to adjust Vertical size = 225 ± 2 mm.

(9) VERTICAL CENTER ADJUSTMENT

1. Set Video Signal Generator to MODE 1 (Crosshatch Pattern) and input to monitor. (Mode may be changed 1 to 13 in sequence)
2. Repeatedly press < or > key to select Vertical center. (The ◘ symbol changes color.)
3. Press + or — to adjust Vertical center ≤ 2 mm. (See Fig 7, | E-F | ≤ 2 mm)

(10) HORIZONTAL WIDTH ADJUSTMENT

1. Set Video Signal Generator to MODE 1 and input to monitor. (Mode may be changed 1 to 13 in sequence)
2. Repeatedly press < or > key to select Horizontal width. (The ◘ symbol changes color.)

# ELECTRICAL ADJUSTMENT

(1) BEFORE ADJUSTMENT

1. Equipment:
   Video Signal Generator (Quantum Data Model 903/Chroma Model 2135)
   Personal Computer or VGA card
   Color Analyzer (MINOLTA CA-100)
2. Set all SVR to half (The SVR SET on central point).
3. AC power input: 100 to 240 Vac 60/50 Hz.
4. Check item: MODE 1 to MODE 13 (refer Page 10,11,12).
5. Before starting adjust each item makeing sure the MODE and Timing is matched with each adjustment item.

(2) B+(14V) ADJUSTMENT (VR101)

1. Input voltage 110Vac to monitor.
2. Set Video Signal Generator to MODE 2 (31 KHz) and input to monitor.
3. Set Brightness and Contrast to MIN.
4. Repeatedly press < or > key to select Horizontal width. (The ⊟ symbol changes color.)
5. Press + or — to adjust Horizontal width = 300 ± 5 mm.
6. Turn FBT screen VR to make raster = 0 FL.
7. Connect Digital Voltmeter between D112 negative and GND.
8. Adjust B+ to 14.2V(± 0.1V) by turning VR101.
9. Check $V_{D113(N)}$ = 7.2 ± 0.3 $V_{DC}$, $V_{D111(N)}$ = 48 ± 1.5 $V_{DC}$, $V_{D115(N)}$ = 80 ± 1.5 $V_{DC}$, $V_{D114(P)}$ = -12 ± 0.3 $V_{DC}$.

(3) HORIZONTAL-FREE-RUN ADJUSTMENT (VR401)

1. No video signal input.
2. Adjust VR401 to let FBT pin 8 = 36 μS ± 0.5 μS (27.4 KHz ~ 28 KHz).

(4) HIGH VOLTAGE ADJUSTMENT (VR402)

1. Set Video Signal Generator to MODE 2 (31 KHz) and input to monitor.
2. Connect High Voltage Meter between Anode Cap and GND.
3. Repeatedly press < or > key to select Horizontal width. (The ⊟ symbol changes color.)
4. Press + or — to adjust Horizontal width = 300 ± 5 mm.
5. Set Brightness to make raster = 0 FL.
6. Set Contrast to MIN.
7. Adjust VR402 to let High voltage = 25.5 ± 0.1KV.
8. Set Video Signal Generator to MODE 13 (64 KHz) and input to monitor.
9. Check High voltage value in -0.3KV ~ -0.5KV.

(5) EHT ADJUSTMENT (VR405)

1. Set Video Signal Generator to MODE 2 (31 KHz) and input to monitor.
2. Repeatedly press < or > key to select Horizontal width. (The ⊟ symbol changes color.)
3. Press + or — to adjust Horizontal width = 300 ± 5 mm.
4. Repeatedly press < or > key to select Vertical size. (The ⊞ symbol changes

3. Press ◐ ∧ or ∨ to show the contrast adjustment window of OSD message.
4. Press + or — to let OSD position in the picture center.

(18) RASTER WHITE BALANCE (RASTER COLOR TEMPERATURE) ADJUSTMENT

1. Set Video Signal Generator to MODE 2 (31 KHz Raster Pattern) and input to monitor.
2. Repeatedly press < or > key to select Degussing. (The Ω symbol changes color.)
3. Press the key + to correct display distortion or discoloration due to magnetic field interference.
4. Turn VR801(R-cutoff), VR802(G-Cutoff), VR803(B-Cutoff) clockwise to end.
5. Adjust the Screen VR of FBT until the raster can be visible.
6. Check the pictur showing what king color is.
7. Adjust the VR (VR801 or VR802 or VR803) without showing the color on the picture until the color analyzer appear:
   x=0.281 ± 5 %
   y=0.311 ± 5 %
8. Adjust the Screen VR of FBT to let raster = 1.0 ~ 1.2 FL.
9. Check the raster keep in range 1.0 ~ 1.4 FL. When adjust raster color temperature.
10. Check Item 5.~8. again.

(19) WHITE BALANCE (COLOR TEMPERATURE) ADJUSTMENT

1. Set Video Signal Generator to MODE 3 (31 KHz Bright Pattern) and input to monitor.
2. Set the Contrast Y = 10~15 FL.
3. Set the Brightness to MIN.
4. Repeatedly press < or > key to select R-gain and G-gain. (The ◑ symbol changes color.)
5. Adjust — and + keys until the color analyzer appear:
   x=0.281 ± 5 %
   y=0.311 ± 5 %
6. Set the Contrast to MAX and check the color temperature. If color temperature over the specification, repeat steps 2.~11.
7. Set the Contrast to MIN and check the screen is gray.
8. Set the Contrast to MAX and check the screen is full white.
9. Check color bar pattern.
10. VR601 is for sub-contrast adjustment.

(20) BRIGHTNESS ADJUSTMENT

1. Set Video Signal Generator to MODE 2 (31 KHz Raster Pattern) and input to monitor.
2. Make sure video input = 0.7 $V_{P-P}$.
3. Set the Contrast to MIN and the Brightness to Max.
4. Check raster = 1.0~1.4 FL by adjust FBT screen VR).
5. Press ☼ ∨ key let raster = 1.0 ± 0.05 FL.
6. Set to full white pattern, check CRT center picture = 1.5~3 FL.
7. Set Contrast to Max.
8. Set 1-MOSAIC(3") pattern.

3. Press + or — to adjust Horizontal width = 300 ± 3 mm.

(11) HORIZONTAL PHASE ADJUSTMENT

1. Set Video Signal Generator to MODE 1 and input to monitor. (Mode may be changed 1 to 13 in sequence)
2. Repeatedly press < or > key to select Horizontal phase. (The ◫ symbol changes color.)
3. Press + or — to adjust Horizontal phase ≤ 2 mm. (See Fig 7, | C-D | ≤ 2 mm)

(12) PINCUSHION ADJUSTMENT

1. Set Video Signal Generator to MODE 1 (Crosshatch Pattern) and input to monitor. (Mode may be changed 1 to 13 in sequence)
2. Repeatedly press < or > key to select Pincushion. (The ⊠ symbol changes color.)
3. Press + or — to let X ≤ 2.0 mm (See Fig 14).

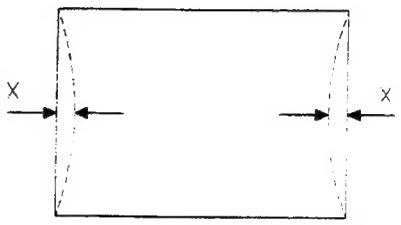


Figure 8

(13) TRAPEZOID ADJUSTMENT

1. Set Video Signal Generator to MODE 1 (Crosshatch Pattern) and input to monitor. (Mode may be changed 1 to 13 in sequence)
2. Repeatedly press < or > key to select Pincushion. (The ⏢ symbol changes color.)
3. Press + or — to let Y ≤ 2.0 mm (See Fig 15).

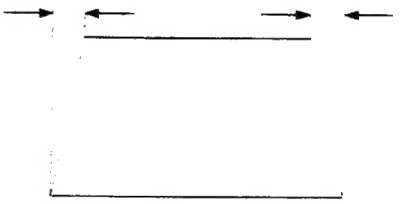


Figure 9

(14) ROTATION(TILT) ADJUSTMENT

1. Set Video Signal Generator to MODE 1 (Crosshatch Pattern) and input to monitor. (Mode may be changed 1 to 13 in sequence)
2. Repeatedly press < or > key to select Pincushion. (The **T** symbol changes color.)
3. Press + or — to let Rotation ≤ 1.5 mm.

(15) SAVE FUNCTION

1. The monitor provides auto save function to save item(8)~(14) settings change. The auto save function acts when
   i. Mode and adjustment change immediately.
   ii. Mode persists and function adjustment changes at 10 seconds later.
2. FOR TECHNICIAN ONLY : The monitor provides another save methode to save settings into factory standard area of EEPROM for technician only.
   i. Factory standard area of EEPROM has stored the factory settings for user recall.
   ii. If it is necessary to change the EEPROM factory standard area's setting, press —, + & ◐∧ simultaneously when showing the frequency OSD picture.

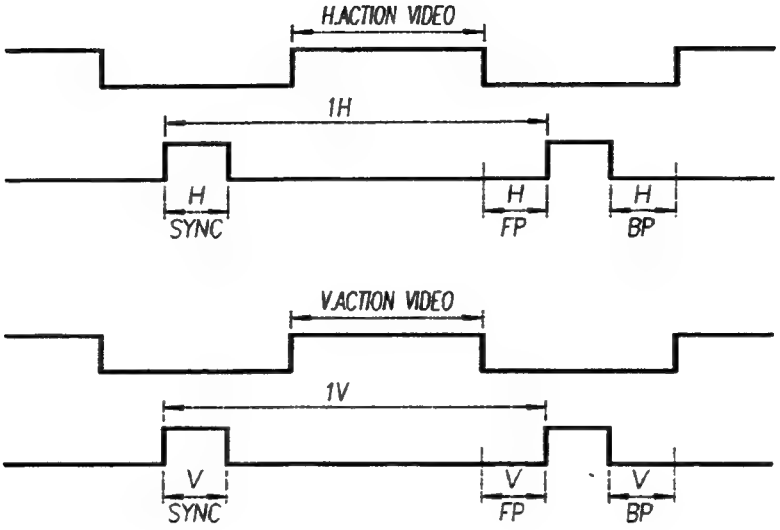
(16) REPEAT ITEM (8) TO (14) AND CHANGE MODE 1 TO 13 IN SEQUENCE

(17) OSD ADJUSTMENT

1. Press ☼ ∧ or ∨ to show the brightness adjustment window of OSD message.
2. Press + or — to let OSD Height = 42 ± 3 mm.

# DISPLAY MODE & TIMING CHART

This monitor provides 13 preset modes for match normal display card and 12 user's modes for special display card. As below chart and table are showing the detail value of preset mode. Please service technician accords table to set video signal generator for input/test/adjust the monitor.




| Standard | IBM/VGA | IBM/VGA | IBM/8514A | VESA |
|---|---|---|---|---|
| Compatibility | MODE 1 | MODE 2 | MODE 3 | MODE 4 |
| Resolution | 640x400 | 640x480 | 1024x768 | 640x480 |
| H. Polarity | — | — | + | — |
| H. Frequency | 31.469 kHz | 31.469 kHz | 35.524 kHz | 37.861 kHz |
| H. Front Porch | 0.636 μs | 0.636 μs | 0.1782 μs | 0.508 μs |
| H. Sync | 3.813 μs | 3.813 μs | 3.9196 μs | 1.270 μs |
| H. Back Porch | 1.907 μs | 1.907 μs | 1.2475 μs | 3.810 μs |
| H. Action Video | 25.422 μs | 25.422 μs | 22.805 μs | 20.317 μs |
| V. Polarity | + | — | + | — |
| V. Frequency | 70.086 Hz | 59.941 Hz | 87.000 Hz | 72.809 Hz |
| V. Front Porch | 0.381 ms | 0.318 ms | 0.014 ms | 0.026 ms |
| V. Sync | 0.064 ms | 0.064 ms | 0.1126 ms | 0.079 ms |
| V. Back Porch | 1.112 ms | 1.050 ms | 0.563 ms | 0.528 ms |
| V. Action Video | 12.711 ms | 15.253 ms | 10.810 ms | 12.678 ms |

9. Adjust VR601(sub-contrast) let CRT center block keep in range 55~65 FL. Factory sets 60 FL.
10. Set Video Signal Generator to High level input(0.90 $V_{P-P}$)
11. Check the screen.

(21) ABL ADJUSTMENT(VR404)

1. Set Video Signal Generator to MODE 2 (31 KHz Full White Pattern) and input to monitor.
2. Make sure video input = 0.7 $V_{P-P}$.
3. Adjust VR404(clockwise) let picture center = 30 FL (35 ± 5 FL).
4. Check the picture around lights up to 70%.

(22) FOCUS ADJUSTMENT

1. Set Video Signal Generator to MODE 13 (64K White Pattern) and input to monitor.
2. Set Brightness to MIN make raster = 0 FL.
3. Set Contrast Y = 20~25 FL.
4. Change Video Signal Generator to MODE 13 (64K "H" Pattern)
5. Adjust FBT FOCUS VR to make the CRT display clear.

(23) CONVERGENCY ADJUSTMENT

1. Set Video Signal Generator to MODE 2 (31 KHz Purple Crosshatch Pattern) and input to monitor.
2. Check red and blue color of picture center is overlap or not. If it is not overlap, adjust 4 magnetic pole of CRT YOKE.
3. Set Video Signal Generator to MODE 2 (31 KHz White Crosshatch Pattern) and input to monitor.
4. Check red, green and blue color of picture center is overlap or not. If it is not overlap, adjust 6 magnetic pole of CRT YOKE.
5. Fasten and glue magnetic pole tight, if you adjust it.

(24) POWER SAVING CHECK

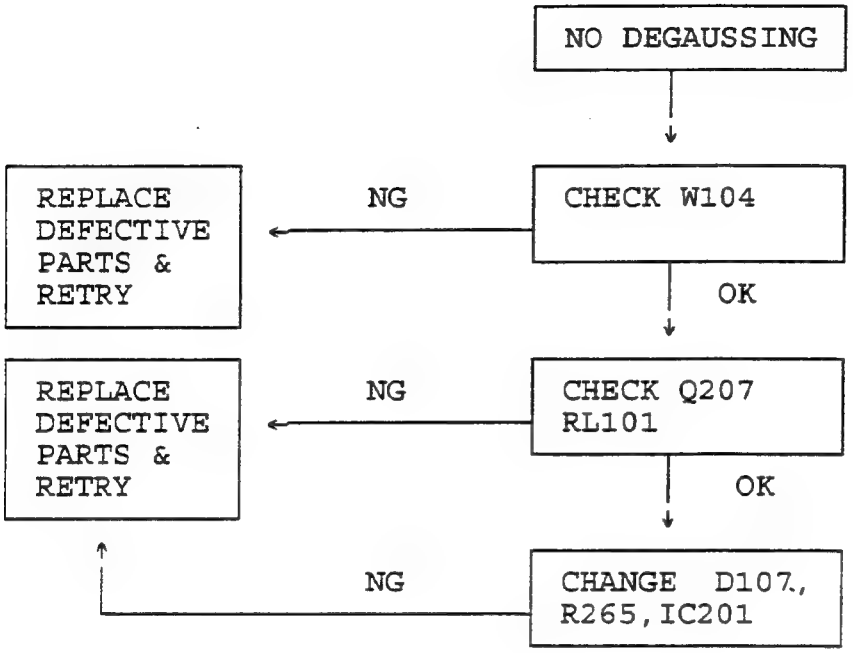
1. Equipment: Video Signal Generator
   i. Quantum Data Model 901
   ii. Chroma Model 2135
2. Set Stand-by, Suspend and Off states into equipment as following.
   i. Stand-by state ⇒ H-sync ≤ 10K Hz
   ii. Suspend state ⇒ V-sync ≤ 10 Hz
   iii. Off state ⇒ H-sync ≤ 10K Hz and V-sync ≤ 10 Hz
3. AC power input: 100 to 240 Vac 60/50 Hz.
4. Set Video Signal Generator(Chroma 2135) to Stand-by and input to monitor. Check power consumption below 15W in 5 seconds.
5. Set Chroma 2135 to MODE 2 and check the display is normal in 3 seconds.
6. Set Chroma 2135 to Suspend and check power consumption below 15W in 5 seconds.
7. Set Chroma 2135 to MODE 2 and check the display is normal in 3 seconds.
8. Set Chroma 2135 to Off and check power consumption below 5W in 5 seconds.
9. Set Chroma 2135 to MODE 2 and check the display is normal.

| Standard | 1280/60 |
|---|---|
| Compatibility | MODE 13 |
| Resolution | 1280x1024 |
| H. Polarity | + |
| H. Frequency | 64.31 kHz |
| H. Front Porch | 0.374 μs |
| H. Sync | 0.972 μs |
| H. Back Porch | 2.243 μs |
| H. Action Video | 11.961 μs |
| V. Polarity | + |
| V. Frequency | 60.000 Hz |
| V. Front Porch | 0.094 ms |
| V. Sync | 0.047 ms |
| V. Back Porch | 0.501 ms |
| V. Action Video | 16.025 ms |

| Standard | VESA | VESA | VESA | VESA |
|---|---|---|---|---|
| Compatibility | MODE 5 | MODE 6 | MODE 7 | MODE 8 |
| Resolution | 640x480 | 800x600 | 800x600 | 800x600 |
| H. Polarity | — | +/— | + | + |
| H. Frequency | 37.500 kHz | 35.156 kHz | 37.879 kHz | 46.875 kHz |
| H. Front Porch | 0.508 μs | 0.667 μs | 1.000 μs | 0.323 μs |
| H. Sync | 2.032 μs | 2.000 μs | 3.200 μs | 1.616 μs |
| H. Back Porch | 3.810 μs | 3.556 μs | 2.200 μs | 3.232 μs |
| H. Action Video | 20.317 μs | 22.222 μs | 20.000 μs | 16.162 μs |
| V. Polarity | — | +/— | + | + |
| V. Frequency | 75.000 Hz | 56.250 Hz | 60.3165 Hz | 75.000 Hz |
| V. Front Porch | 0.027 ms | 0.028 ms | 0.026 ms | 0.021 ms |
| V. Sync | 0.080 ms | 0.057 ms | 0.106 ms | 0.064 ms |
| V. Back Porch | 0.427 ms | 0.626 ms | 0.607 ms | 0.448 ms |
| V. Action Video | 12.800 ms | 17.067 ms | 15.840 ms | 13.599 ms |

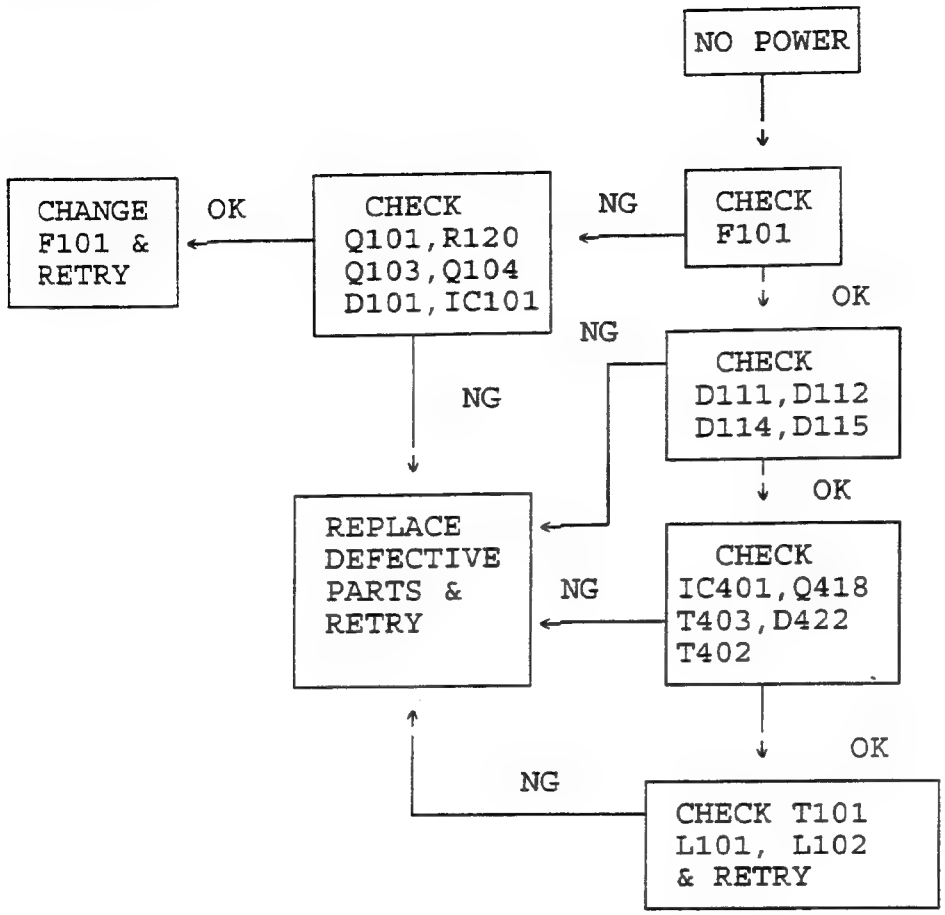
| Standard | VESA | VESA | VESA | VESA |
|---|---|---|---|---|
| Compatibility | MODE 9 | MODE 10 | MODE 11 | MODE 12 |
| Resolution | 800x600 | 1024x768 | 1024x768 | 1024x768 |
| H. Polarity | + | — | — | + |
| H. Frequency | 48.090 kHz | 48.363 kHz | 56.476 kHz | 60.023 kHz |
| H. Front Porch | 1.120 μs | 0.369 μs | 0.320 μs | 0.203 μs |
| H. Sync | 2.400 μs | 2.092 μs | 1.813 μs | 1.219 μs |
| H. Back Porch | 1.280 μs | 2.462 μs | 1.920 μs | 2.235 μs |
| H. Action Video | 16.000 μs | 15.754 μs | 13.653 μs | 13.003 μs |
| V. Polarity | + | — | — | + |
| V. Frequency | 72.188 Hz | 60.004 Hz | 70.069 Hz | 75.029 Hz |
| V. Front Porch | 0.770 ms | 0.062 ms | 0.053 ms | 0.017 ms |
| V. Sync | 0.125 ms | 0.124 ms | 0.106 ms | 0.050 ms |
| V. Back Porch | 0.478 ms | 0.600 ms | 0.513 ms | 0.446 ms |
| V. Action Video | 12.480 ms | 15.880 ms | 13.599 ms | 16.025 ms |

## 2. NO DEGAUSSING

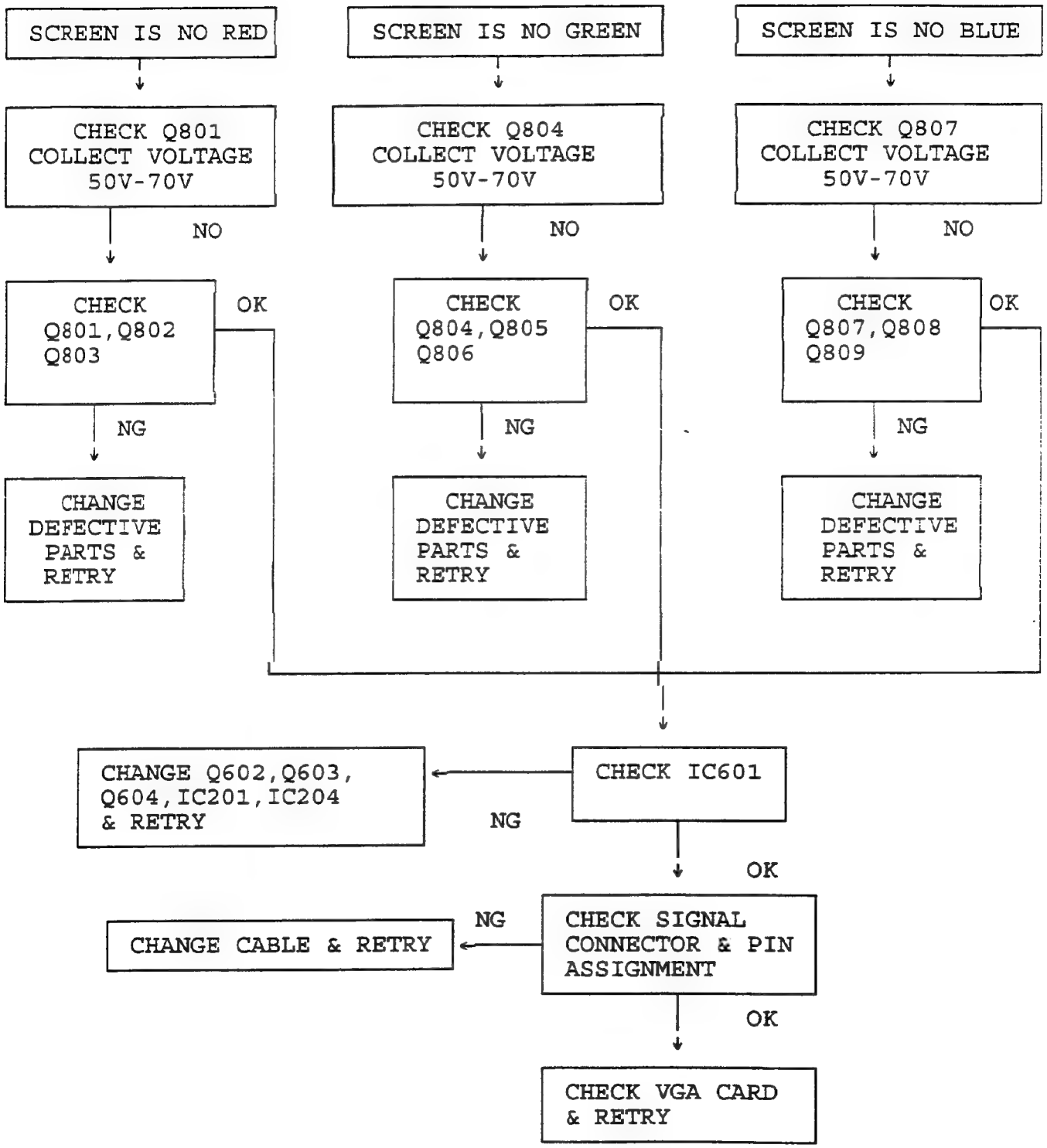


# TROUBLESHOOTING

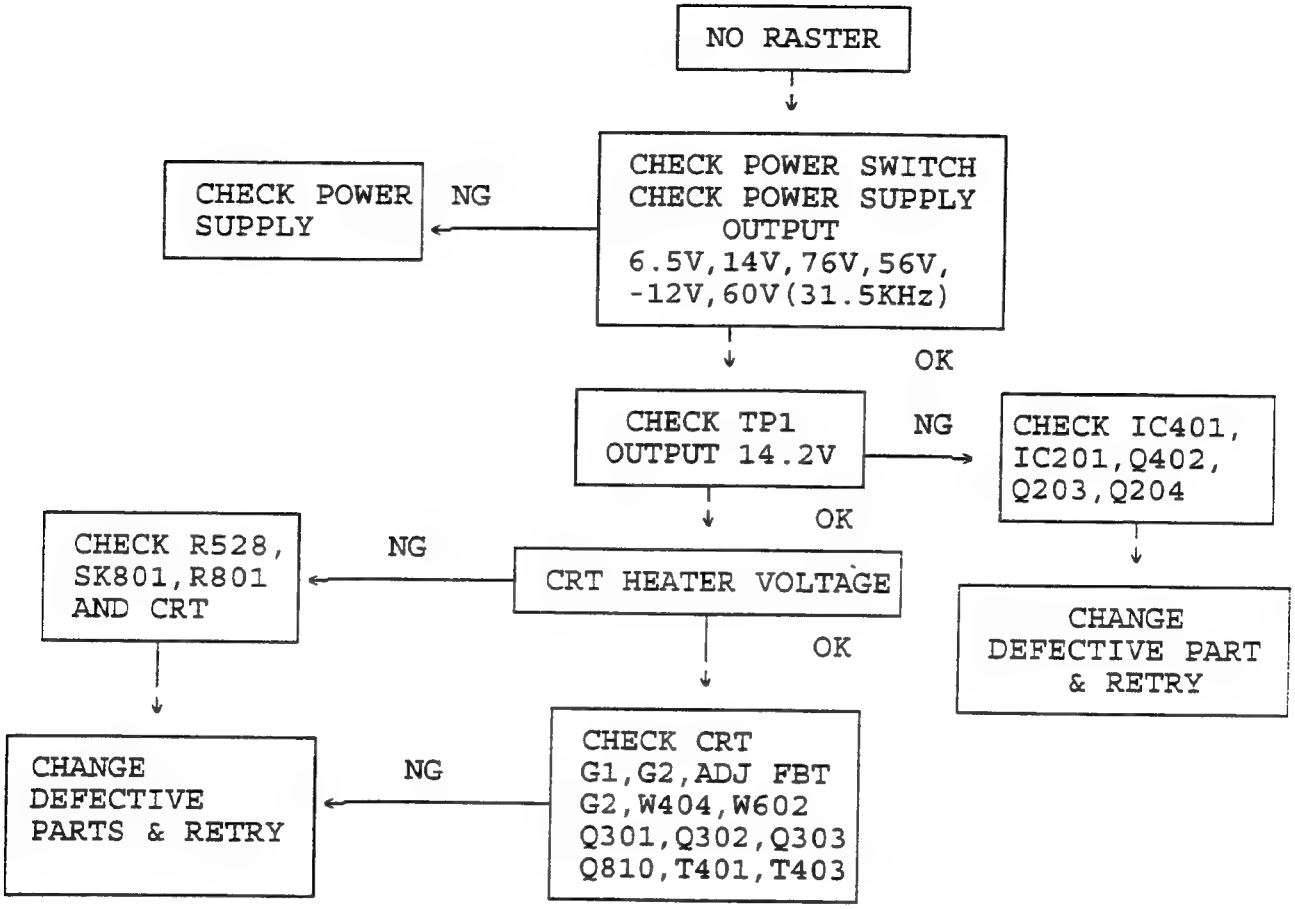
1. NO POWER



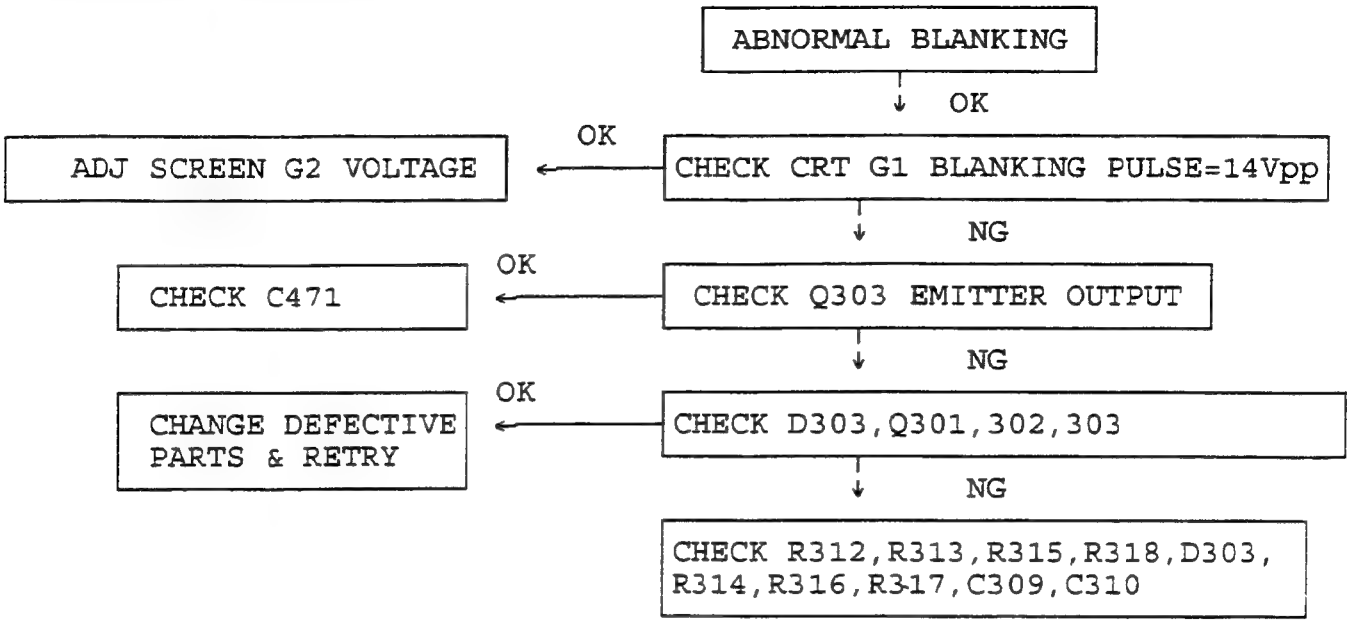
## 4. PICTURE OR COLOR MISSING



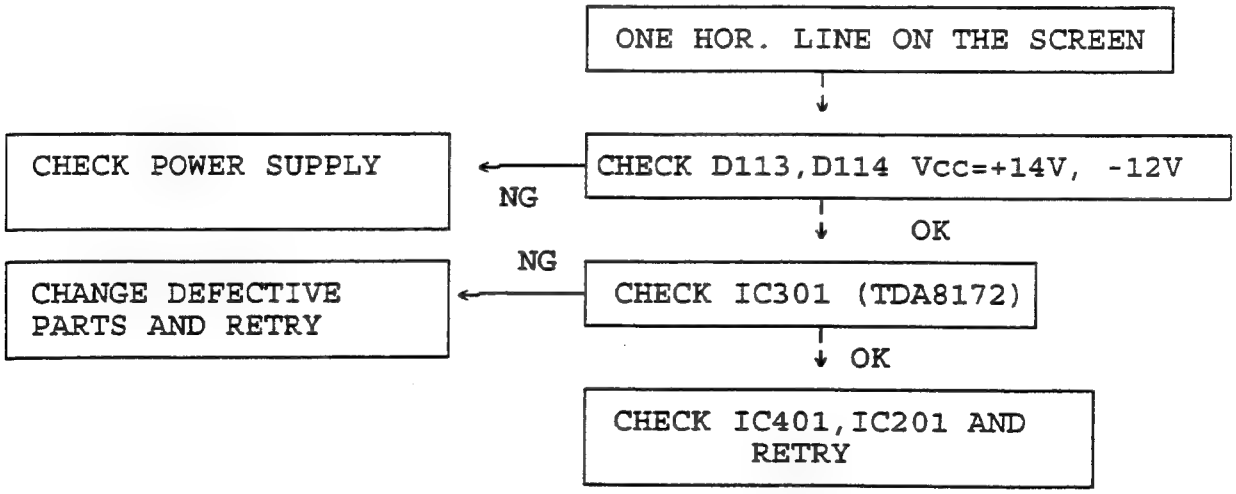
## 3. NO RASTER


NO RASTER
CHECK POWER SWITCH
CHECK POWER SUPPLY OUTPUT
6.5V,14V,76V,56V,
-12V,60V(31.5KHz)
NG
CHECK POWER SUPPLY
OK
CHECK TP1
OUTPUT 14.2V
NG
CHECK IC401,
IC201,Q402,
Q203,Q204
OK
CRT HEATER VOLTAGE
NG
CHECK R528,
SK801,R801
AND CRT
OK
CHANGE
DEFECTIVE PART
& RETRY
CHECK CRT
G1,G2,ADJ FBT
G2,W404,W602
Q301,Q302,Q303
Q810,T401,T403
NG
CHANGE
DEFECTIVE
PARTS & RETRY

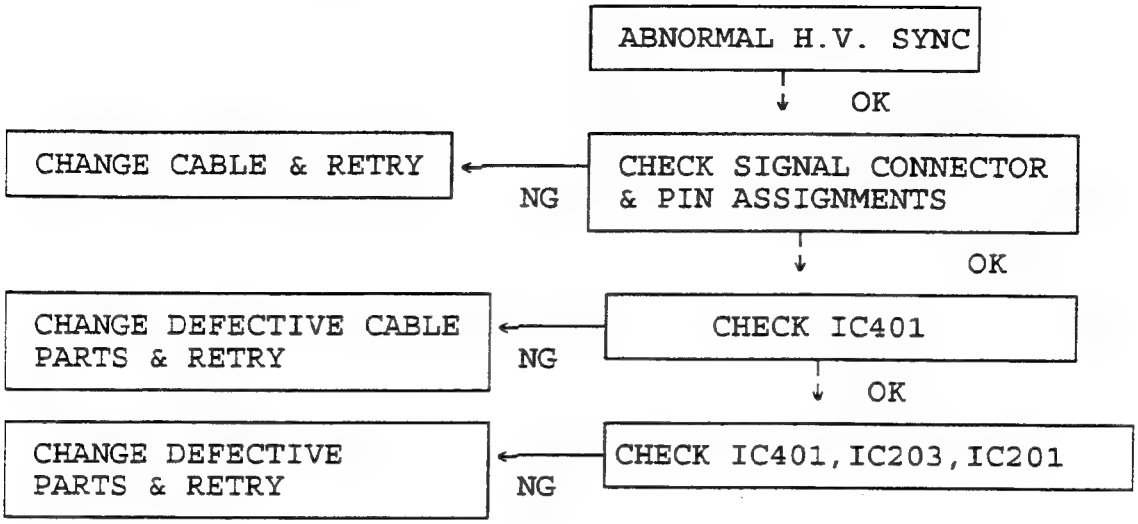
## 7. ABNORMAL BLANKING



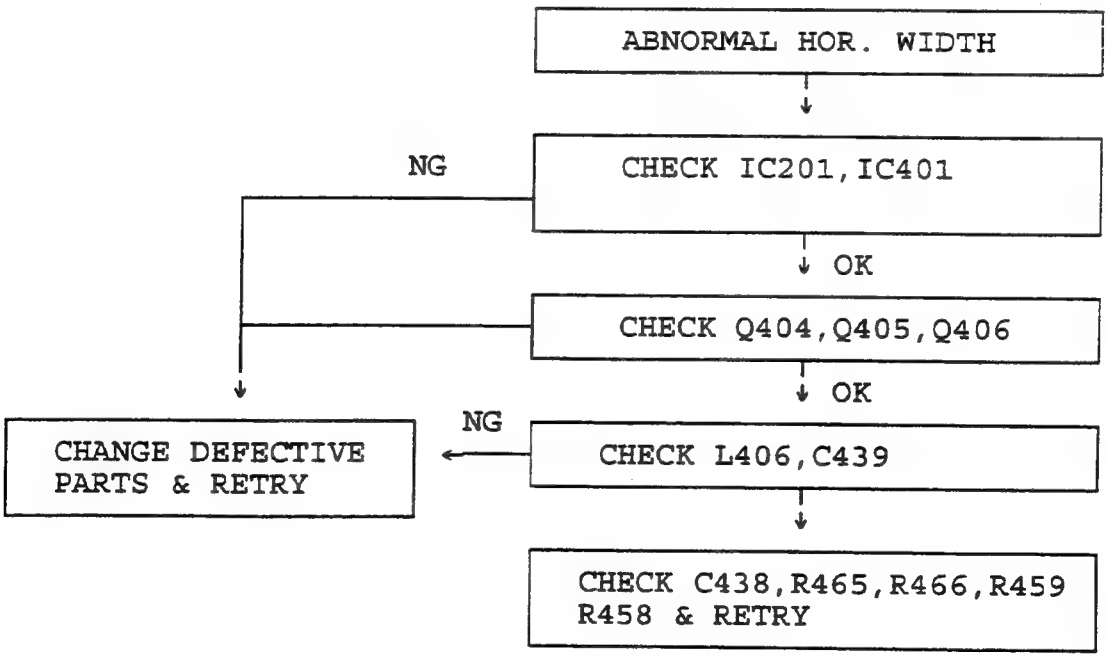

## 8. NO VERTICAL SCAN OR VERTICAL SIZE CAN NOT ADJUST



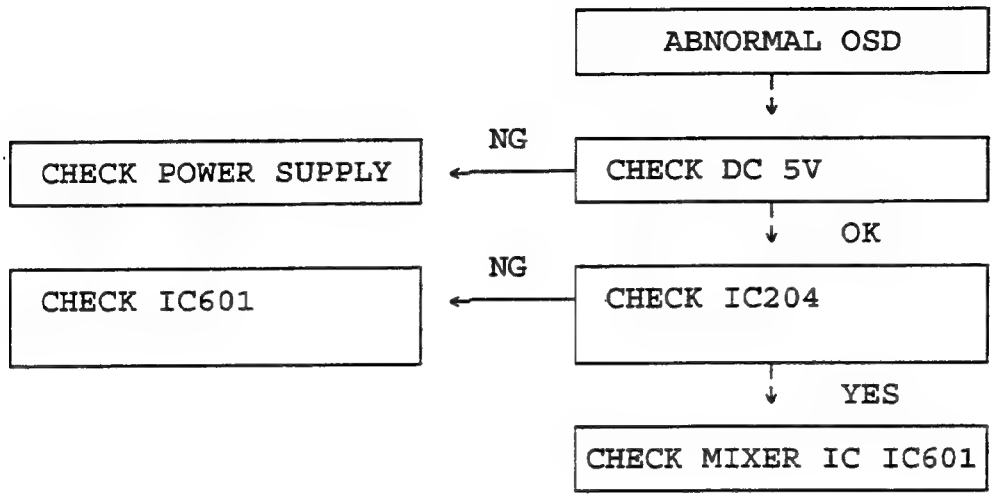
## 5. H.V. SYNC IS ABNORMAL



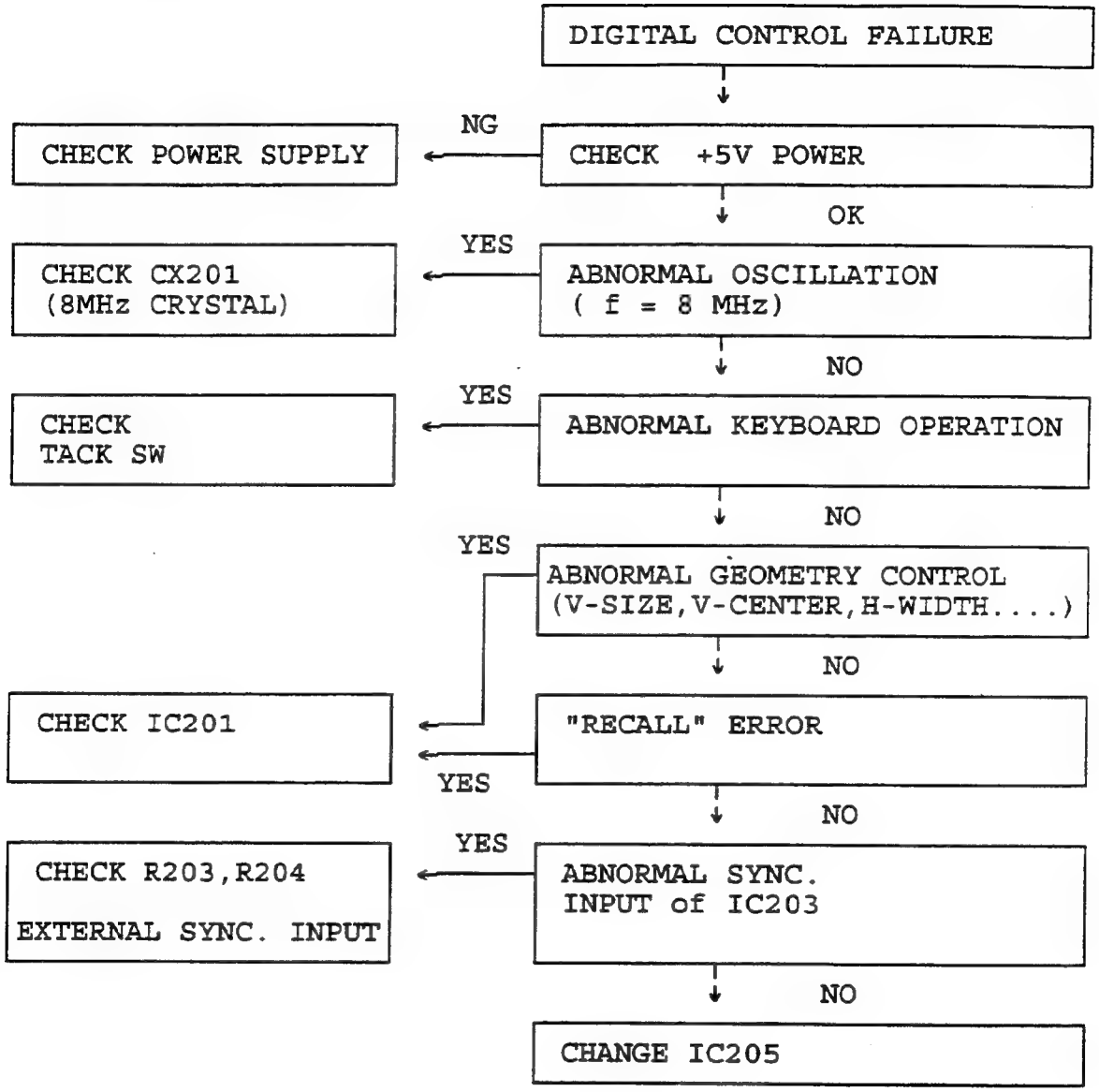

## 6. HOR. WIDTH CAN NOT ADJUST



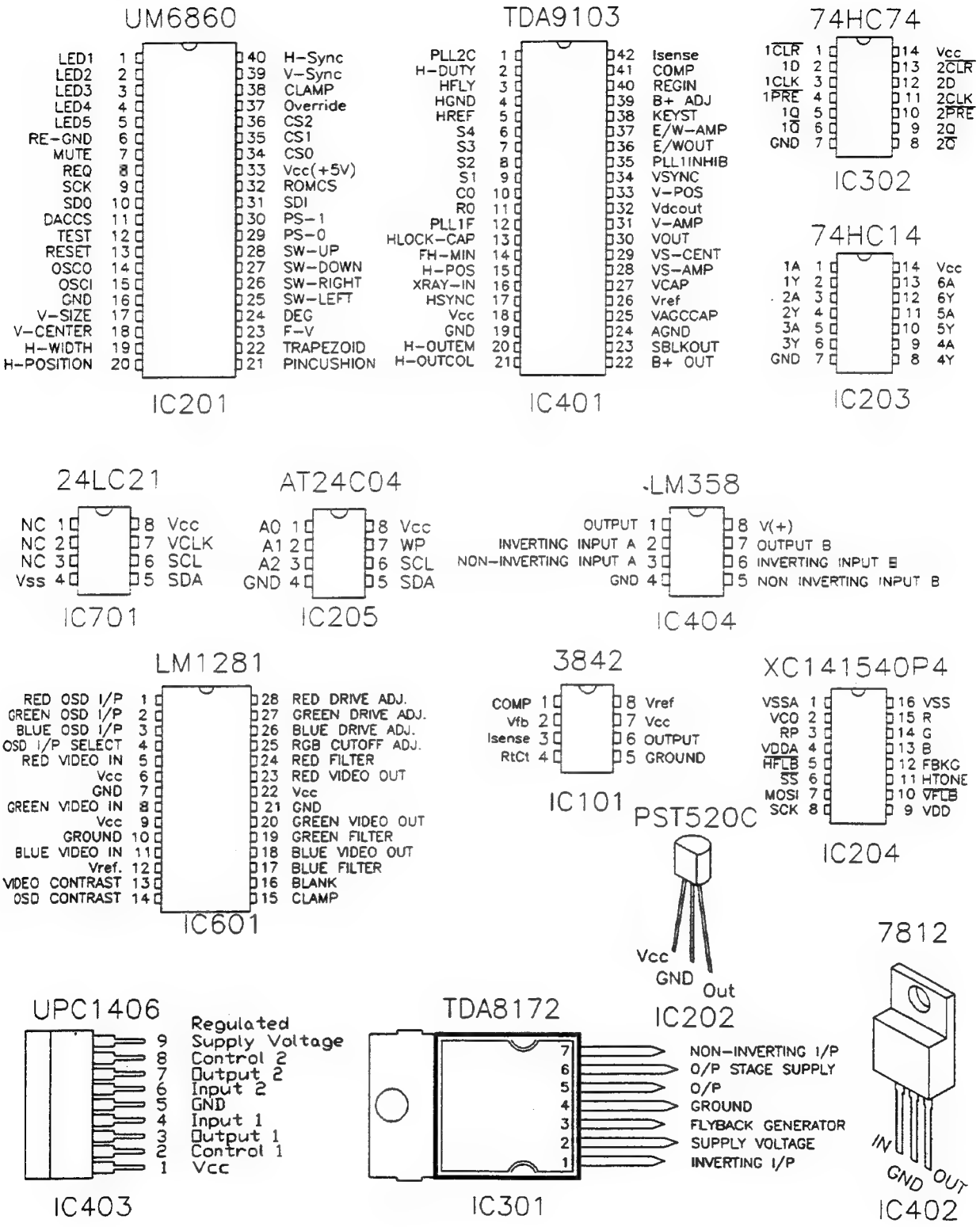
## 10. ABNORMAL OSD



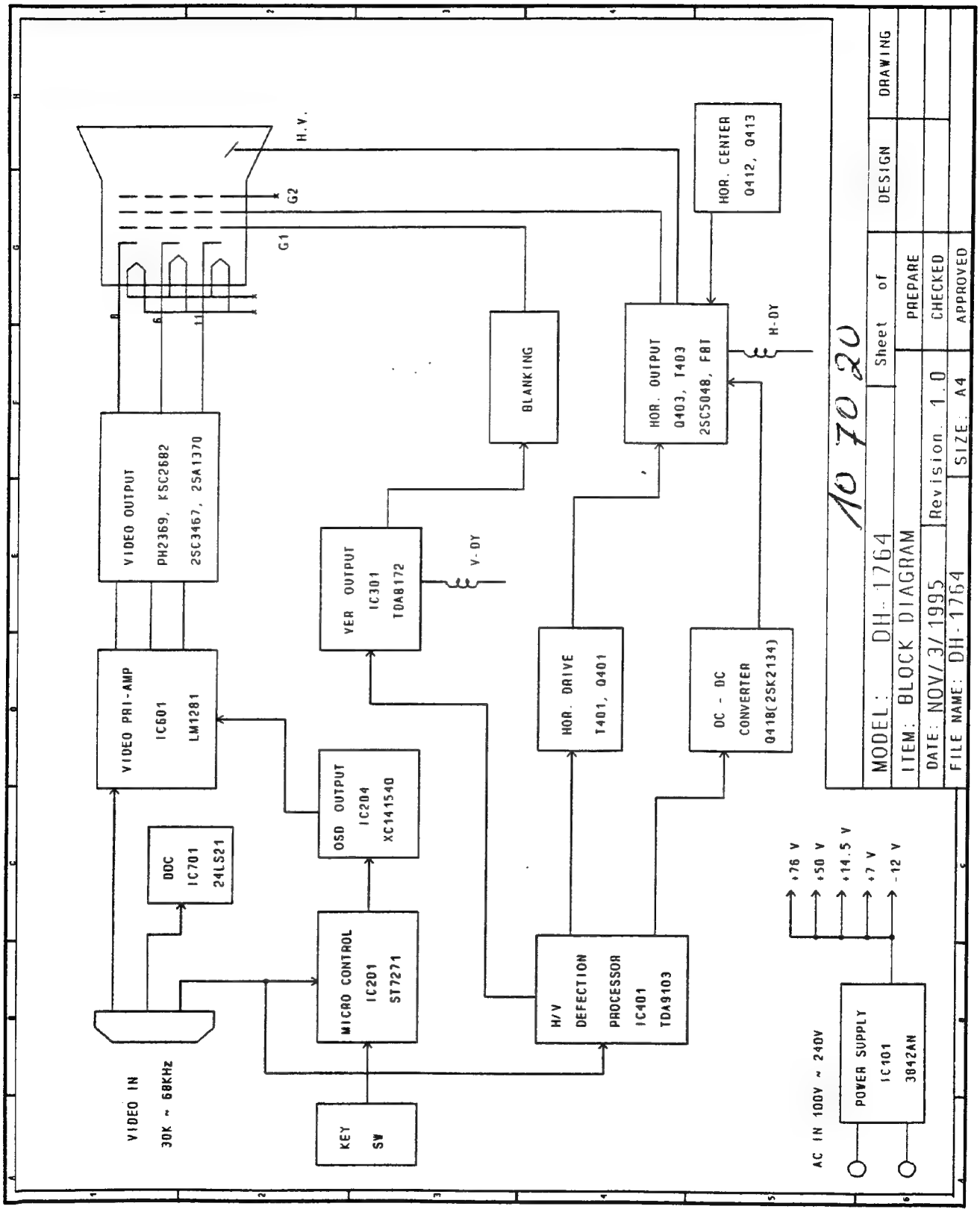
## 9. DIGITAL CONTROL FAILURE



# IC/TRANSISTOR BLOCK DIAGRAMS



# BLOCK DIAGRAM

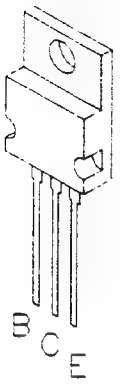


# ELECTRICAL REPLACEMENT PARTS LIST

Date:JAN/16/1996 Version: 1.7

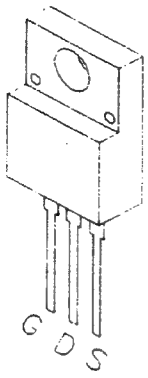
| Position | Parts No. | Description |
|---|---|---|
| C101 | CX2242EKH8 | XTYPE,0.22UF/AC250V,K;H |
| C104 | CY4722GMZ8 | YTYPE,4700PF/AC400V,M;Z |
| C105 | CY4722GMZ8 | YTYPE,4700PF/AC400V,M;Z |
| C106 | CX2242EKH8 | XTYPE,0.22UF/AC250V,K;H |
| C108 | CE2272GMC3 | EC,220UF/400V,M;C |
| C109 | CC0143AZC6 | CC,0.01UF/1KV,Z;C |
| C111 | CE0161HM23 | EC,1UF/50V,M;2 |
| C112 | CE1071EM23 | EC,100UF/25V,M;2 |
| C113 | CE1071CM25 | EC,100UF/16V,M;2 |
| C114 | CC1021HK23 | CC,1000PF/50V,K;2 |
| C115 | CE1061HM23 | EC,10UF/50V,M;2 |
| C117 | CY4722GMZ8 | YTYPE,4700PF/AC400V,M;Z |
| C118 | CC3311HK26 | CC,330PF/50V,K;2 |
| C119 | CC3311HK26 | CC,330PF/50V,K;2 |
| C120 | CM0141HJ22 | MEF,0.01UF/50V,J;2 |
| C121 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C122 | CM3321HJ23 | MEF,3300PF/50V,J;2 |
| C123 | CC2213AK22 | CC,220PF/1KV,K;2 |
| C124 | CE1081JMZ9 | EC,1000UF/63V,M;Z |
| C126 | CE2281EMB8 | EC,2200UF/25V,M;B |
| C128 | CE1081CMA1 | EC,1000UF/16V,M;A |
| C129 | CE1081CMA1 | EC,1000UF/16V,M;A |
| C130 | CC2213AK22 | CC,220PF/1KV,K;2 |
| C131 | CE4762AMZ4 | EC,47UF/100V,M;Z |
| C132 | CC0142HZ25 | CC,0.01UF/500V,Z;2 |
| C134 | CC0142HZ25 | CC,0.01UF/500V,Z;2 |
| C201 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C202 | CE2271CM28 | EC,220UF/16V,M;2 |
| C203 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C204 | CC1011HK21 | CC,100PF/50V,K;2 |
| C205 | CC1011HK21 | CC,100PF/50V,K;2 |
| C206 | CM0141HJ22 | MEF,0.01UF/50V,J;2 |
| C207 | CE0161HM23 | EC,1UF/50V,M;2 |
| C209 | CM4731HJ20 | MEF,0.047UF/50V,J;2 |
| C210 | CE1071CM25 | EC,100UF/16V,M;2 |
| C211 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C212 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C213 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C214 | CE0161HM23 | EC,1UF/50V,M;2 |
| C215 | CB1061EM28 | BP,10UF/25V,M;2 |
| C216 | CE1071CM25 | EC,100UF/16V,M;2 |
| C218 | CC2201HK22 | CC,22PF/50V,K;2 |
| C219 | CC2201HK22 | CC,22PF/50V,K;2 |
| C220 | CE1061HM23 | EC,10UF/50V,M;2 |
| C221 | CE1061HM23 | EC,10UF/50V,M;2 |
| C222 | CE1061HM23 | EC,10UF/50V,M;2 |
| C223 | CE1061HM23 | EC,10UF/50V,M;2 |
| C224 | CE1061HM23 | EC,10UF/50V,M;2 |
| C225 | CE1061HM23 | EC,10UF/50V,M;2 |
| C226 | CE1061HM23 | EC,10UF/50V,M;2 |
| C227 | CE1061HM23 | EC,10UF/50V,M;2 |
| C227 | CE1061HM23 | EC,10UF/50V,M;2 |
| C228 | CE1061HM23 | EC,10UF/50V,M;2 |
| C229 | CE1061HM23 | EC,10UF/50V,M;2 |
| C230 | CE1061HM23 | EC,10UF/50V,M;2 |
| C231 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C232 | CE4771AM27 | EC,470UF/10V,M;2 |
| C301 | CE1081EMA9 | EC,1000UF/25V,M;A |
| C302 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C303 | CE0161HM23 | EC,1UF/50V,M;2 |
| C304 | CE1071EM23 | EC,100UF/25V,M;2 |
| C306 | CE1081CMA1 | EC,1000UF/16V,M;A |
| C307 | CM2241HJ25 | MEF,0.22UF/50V,J;2 |
| C308 | CM4741HJ22 | MEF,0.47UF/50V,J;2 |
| C309 | CM0151HJ24 | MEF,0.1UF/50V,J;2 |
| C310 | CC4711HK21 | CC,470PF/50V,K;2 |
| C311 | CE1061HM23 | EC,10UF/50V,M;2 |
| C312 | CE1071CM25 | EC,100UF/16V,M;2 |
| C313 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C314 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C401 | CE2271EM26 | EC,220UF/25V,M;2 |
| C402 | CE1081CMA1 | EC,1000UF/16V,M;A |
| C403 | CM2221HJ21 | MEF,2200PF/50V,J;2 |
| C404 | CE0161HM23 | EC,1UF/50V,M;2 |
| C405 | CM2231HJ23 | MEF,0.022UF/50V,J;2 |
| C406 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C407 | CC1011HK21 | CC,100PF/50V,K;2 |
| C408 | CM1021HJ28 | MEF,1000PF/50V,J;2 |
| C409 | CE1071CM25 | EC,100UF/16V,M;2 |
| C410 | CM1021HJ28 | MEF,1000PF/50V,J;2 |
| C411 | CE4761EM21 | EC,47UF/25V,M;2 |
| C412 | CC1021HK23 | CC,1000PF/50V,K;2 |
| C413 | CE4761EM21 | EC,47UF/25V,M;2 |
| C414 | CM2241HJ25 | MEF,0.22UF/50V,J;2 |
| C415 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C416 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C418 | CE1071CM25 | EC,100UF/16V,M;2 |
| C419 | CE1071CM25 | EC,100UF/16V,M;2 |
| C420 | CE1071CM25 | EC,100UF/16V,M;2 |
| C421 | CM4741HJ22 | MEF,0.47UF/50V,J;2 |
| C422 | CM2241HJ25 | MEF,0.22UF/50V,J;2 |
| C423 | CC0151HZ24 | CC,0.1UF/50V,Z'2 |
| C424 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C425 | CC0151HZ24 | CC,0.1UF/50V,Z'2 |
| C427 | CC0151HZ24 | CC,0.1UF/50V,Z'2 |
| C429 | CC0151HZ24 | CC,0.1UF/50V,Z'2 |
| C430 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C432 | CE1071CM25 | EC,100UF/16V,M;2 |
| C433 | CM4741HJ22 | MEF,0.47UF/50V,J;2 |
| C435 | CC1021HK23 | CC,1000PF/50V,K;2 |
| C437 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C438 | CM3352AJ80 | MEF,3.3UF/100V,J;8 |
| C439 | CC1011HK21 | CC,100PF/50V,K;2 |
| C440 | CE4761EM21 | EC,47UF/25V,M;2 |
| C441 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C443 | CB1071CM22 | BP,100UF/16V,M;2 |
| C443 | CB1071CMA6 | BP,100UF/16V,M;A |
| C444 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C446 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C447 | CF0162EJH6 | PMH(MPS),1UF/250V,J;H |
| C449 | CF2242GJG7 | PMH(MPS),0.22UF/400V,J;G |
| C450 | CC1023AZ26 | CC,1000PF/1KV,Z;2 |
| C451 | CM2242EJ26 | MEF,0.22UF/250V,J;2 |
| C452 | CC2213AK22 | CC,220PF/1KV,K;2 |
| C453 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C454 | CC0151HZ24 | CC,0.1UF/50V,Z'2 |
| C455 | CE2252WMZ1 | EC,2.2UF/450V,M;Z |
| C456 | CC0151HZ24 | CC,0.1UF/50V,Z'2 |
| C457 | CE4762EMZ8 | EC,47UF/250V,M;Z |
| C458 | CQ8223MJG7 | PPS,8200PF/1.6KV,J;G |
| C459 | CR4732JJG6 | PPN,0.047UF/630V,J;G |
| C460 | CR0142KJE0 | PPN,0.01UF/800V,J;E |
| C461 | CE1071CM25 | EC,100UF/16V,M;2 |
| C462 | CE1071CM25 | EC,100UF/16V,M;2 |

C5048



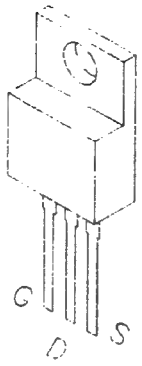

Q403

K1118



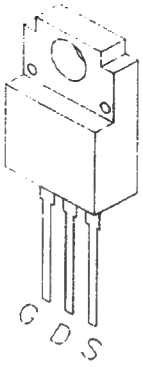

Q101

IRF630



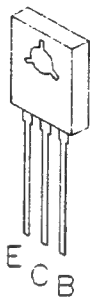

Q418
Q423

D2107



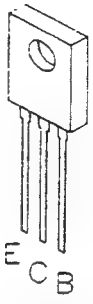

Q405

C1162



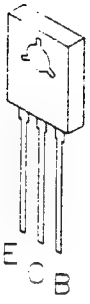

Q412

C2682




Q801
Q804
Q807

A715

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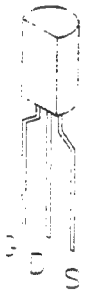
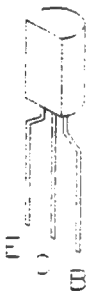
Q205
Q413

K941




Q402

C1921

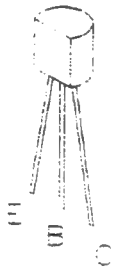



Q426

C1213


Q201
Q408
Q411

2N3904

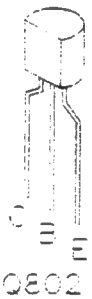



Q301
Q302
Q303

BF423


Q422

PH2369

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Q805
Q808

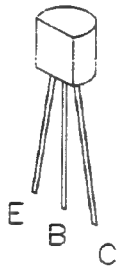
C2705


Q810

MCR100-6


Q102

HTL145

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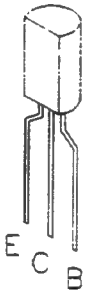
Q415

B647A

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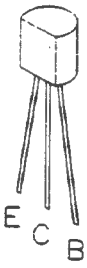
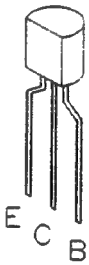
Q806
Q809

A673



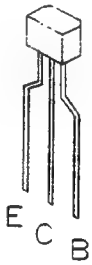

Q208 Q410
Q404 Q417
Q406 Q420
Q409 Q602

MPSA13




Q427

C3402

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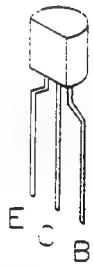
Q421

C945




Q202 Q416
Q204 Q419
Q206 Q425
Q207 Q603
Q304 Q604
Q414

| Position | Parts No. | Description |
|---|---|---|
| D205(substitute) | DN41483118 | DIODE 1N4148 |
| D206(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| D206(substitute) | DN41482819 | DIODE 1N4148 (TFK) |
| D206(substitute) | DN41483118 | DIODE 1N4148 |
| D206(substitute) | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| D207 | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| D207(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| D207(substitute) | DN41482819 | DIODE 1N4148 (TFK) |
| D207(substitute) | DN41483118 | DIODE 1N4148 |
| D208 | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| D208(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| D208(substitute) | DN41482819 | DIODE 1N4148 (TFK) |
| D208(substitute) | DN41483118 | DIODE 1N4148 |
| D301 | DM33G*26Z1 | DIODE BYD33G 400V (PHILIPS) |
| D302 | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| D302(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| D302(substitute) | DN41482819 | DIODE 1N4148 (TFK) |
| D302(substitute) | DN41483118 | DIODE 1N4148 |
| D303 | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| D303(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| D303(substitute) | DN41482819 | DIODE 1N4148 (TFK) |
| D303(substitute) | DN41483118 | DIODE 1N4148 |
| D304 | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| D304(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| D304(substitute) | DN41482819 | DIODE 1N4148 (TFK) |
| D304(substitute) | DN41483118 | DIODE 1N4148 |
| D402 | DR1NS44914 | DIODE D1NS4-4060 (SHIN-DENGEN) |
| D403 | DKDQ0645Z1 | DIODE 31DQ06 (IR) |
| D403(substitute) | DSRK4669Z3 | DIODE RK 46 (SANKEN) |
| D404 | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| D404(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| D404(substitute) | DN41482819 | DIODE 1N4148 (TFK) |
| D404(substitute) | DN41483118 | DIODE 1N4148 |
| D405 | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| D405(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| D405(substitute) | DN41482819 | DIODE 1N4148 (TFK) |
| D405(substitute) | DN41483118 | DIODE 1N4148 |
| D406 | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| D406(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| D406(substitute) | DN41482819 | DIODE 1N4148 (TFK) |
| D406(substitute) | DN41483118 | DIODE 1N4148 |
| D407 | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| D407(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| D407(substitute) | DN41482819 | DIODE 1N4148 (TFK) |
| D407(substitute) | DN41483118 | DIODE 1N4148 |
| D408 | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| D408(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| D408(substitute) | DN41482819 | DIODE 1N4148 (TFK) |
| D408(substitute) | DN41483118 | DIODE 1N4148 |
| D409 | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| D409(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| D409(substitute) | DN41482819 | DIODE 1N4148 (TFK) |
| D409(substitute) | DN41483118 | DIODE 1N4148 |
| D410 | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| D410(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| D410(substitute) | DN41482819 | DIODE 1N4148 (TFK) |
| D410(substitute) | DN41483118 | DIODE 1N4148 |
| D411 | DM33G*26Z1 | DIODE BYD33G 400V (PHILIPS) |
| D412 | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| D412(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| D412(substitute) | DN41482819 | DIODE 1N4148 (TFK) |
| D412(substitute) | DN41483118 | DIODE 1N4148 |
| D413 | DT52M*28Z1 | DIODE BYT52M (TFK) |
| D414 | DT52M*28Z1 | DIODE BYT52M (TFK) |
| D416 | 1C046N48N2 | HEAT SINK EXTRU 1.2t*27*46mm DH1764 |
| D416 | D9540642Z2 | DIODE FUF5406-600V (FAGOR) |
| D416 | NEUF540601 | FUF5406-600V ASS'Y |
| D417 | DM33G*26Z1 | DIODE BYD33G 400V (PHILIPS) |
| D418 | DM33G*26Z1 | DIODE BYD33G 400V (PHILIPS) |
| D419 | DM33G*26Z1 | DIODE BYD33G 400V (PHILIPS) |
| D420 | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| D420(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| D420(substitute) | DN41482819 | DIODE 1N4148 (TFK) |
| D420(substitute) | DN41483118 | DIODE 1N4148 |
| D421 | DZ16042607 | DIODE(Z) 16V 1/2W (PHILIPS) |
| D421(substitute) | DZ16042807 | DIODE(Z) 16V 1/2W |
| D421(substitute) | DZ16043106 | DIODE(Z) 16V 1/2W |
| D422 | D9540442Z6 | DIODE FUF5404-400V (FAGOR) |
| D423 | DIR10540Z9 | DIODE HER105 1A/400V |
| D423(substitute) | DT52G*28Z9 | DIODE BYT52G (TFK) |
| D424 | DM33G*26Z1 | DIODE BYD33G 400V (PHILIPS) |
| D425 | D7315F70Z7 | DIODE AD-315F |
| D426 | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| D426(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| D426(substitute) | DN41482819 | DIODE 1N4148 (TFK) |
| D426(substitute) | DN41483118 | DIODE 1N4148 |
| D427 | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| D427(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| D427(substitute) | DN41482819 | DIODE 1N4148 (TFK) |
| D427(substitute) | DN41483118 | DIODE 1N4148 |
| D601 | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| D601(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| D601(substitute) | DN41482819 | DIODE 1N4148 (TFK) |
| D601(substitute) | DN41483118 | DIODE 1N4148 |
| D602 | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| D602(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| D602(substitute) | DN41482819 | DIODE 1N4148 (TFK) |
| D602(substitute) | DN41483118 | DIODE 1N4148 |
| D603 | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| D603(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| D603(substitute) | DN41482819 | DIODE 1N4148 (TFK) |
| D603(substitute) | DN41483118 | DIODE 1N4148 |
| D701 | DZ51C42602 | DIODE(Z) 5.1V 1/2W (PHILIPS) |
| D701(substitute) | DZ51C42802 | DIODE(Z) 5.1V 1/2W |
| D701(substitute) | DZ51C43101 | DIODE(Z) 5.1V 1/2W |
| D703 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| D801 | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| D801(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| D801(substitute) | DN41482819 | DIODE 1N4148 (TFK) |
| D801(substitute) | DN41483118 | DIODE 1N4148 |
| D802 | D3083*3114 | DIODE 1SS83(1A/300V) (HITACHI) |
| D803 | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| D803(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| D803(substitute) | DN41482819 | DIODE 1N4148 (TFK) |
| D803(substitute) | DN41483118 | DIODE 1N4148 |
| D804 | D3083*3114 | DIODE 1SS83(1A/300V) (HITACHI) |
| D805 | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| D805(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| D805(substitute) | DN41482819 | DIODE 1N4148 (TFK) |
| D805(substitute) | DN41483118 | DIODE 1N4148 |
| D806 | D3083*3114 | DIODE 1SS83(1A/300V) (HITACHI) |
| F101 | FB25233216 | FUSE 3.15A 250V 20mm (SEMKO) |
| F101 use | 1T010N01N3 | FUSE CLIP 7*7*12mmH |
| FBT use | 4T314W01N4 | SCREW TAP-2 #3*14mm W/H |
| FIX PCB & BRACKET | 4T308N01N4 | SCREW TAP #3*8mm NI W/H |
| FOR R,G,B OUT TO W802 | KEB6AA1025 | 6P WIRE 240mm R/BL/GRAY UL1365#26 |
| FOR VIDEO CABLE | 2Y080N12N5 | CABLE TIE 80mm |
| FOR VIDEO CABLE | LC1A280C00 | RING CORE 28x7.5x15.8 |
| FOR W801 TO W404 | KDB51A1017 | 5P WIRE 230mm R/W/BLU/Y/BLK UL1007#26 |

| Position | Parts No. | Description |
|---|---|---|
| C463 | CE1072EMB6 | EC,100UF/250V,M;B |
| C465 | CE0161HM23 | EC,1UF/50V,M;2 |
| C466 | CE4752EM22 | EC,4.7UF/250V,M;2 |
| C467 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C468 | CE0161HM23 | EC,1UF/50V,M;2 |
| C469 | CE1061HM23 | EC,10UF/50V,M;2 |
| C470 | CM4741HJ22 | MEF,0.47UF/50V,J;2 |
| C471 | CE4742EM20 | EC,0.47UF/250V,M;2 |
| C480 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C481 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C482 | CF2242GJG7 | PMH(MPS),0.22UF/400V,J;G |
| C483 | CF2242GJG7 | PMH(MPS),0.22UF/400V,J;G |
| C484 | CC1023AZ26 | CC,1000PF/1KV,Z;2 |
| C485 | CC1023AZ26 | CC,1000PF/1KV,Z;2 |
| C487 | CM0151HJ24 | MEF,0.1UF/50V,J;2 |
| C488 | CC3311HK26 | CC,330PF/50V,K;2 |
| C489 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C490 | CE1061HM23 | EC,10UF/50V,M;2 |
| C491 | CM4741HJ22 | MEF,0.47UF/50V,J;2 |
| C495 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C496 IN | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C601 | CE0161HM23 | EC,1UF/50V,M;2 |
| C602 | CE0161HM23 | EC,1UF/50V,M;2 |
| C603 | CE0161HM23 | EC,1UF/50V,M;2 |
| C604 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C605 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C607 | CE1061HM23 | EC,10UF/50V,M;2 |
| C608 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C609 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C610 | CE1071CM25 | EC,100UF/16V,M;2 |
| C611 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C613 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C614 | CE0161HM23 | EC,1UF/50V,M;2 |
| C615 | CE0161HM23 | EC,1UF/50V,M;2 |
| C616 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C617 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C618 | CE0161HM23 | EC,1UF/50V,M;2 |
| C619 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C620 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C621 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C622 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C623 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C625 | CE1071CM25 | EC,100UF/16V,M;2 |
| C626 | CE2271CM28 | EC,220UF/16V,M;2 |
| C627 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C628 | CC1011HK21 | CC,100PF/50V,K;2 |
| C629 | CC1011HK21 | CC,100PF/50V,K;2 |
| C630 | CC1011HK21 | CC,100PF/50V,K;2 |
| C631 | CC1011HK21 | CC,100PF/50V,K;2 |
| C701 | CE1071CM25 | EC,100UF/16V,M;2 |
| C801 | CE1071CM25 | EC,100UF/16V,M;2 |
| C802 | CC1022HZ21 | CC,1000PF/500V,Z;2 |
| C803 | CC0143AZC6 | CC,0.01UF/1KV,Z;C |
| C804 | CC0142HZ25 | CC,0.01UF/500V,Z;2 |
| C805 | CE2262AM21 | EC,22UF/100V,M;2 |
| C806 | CC0142HZ25 | CC,0.01UF/500V,Z;2 |
| C807 | CE1071CM25 | EC,100UF/16V,M;2 |
| C808 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C809 | CC8201HK28 | CC,82PF/50V,K;2 |
| C810 | CB2252AM26 | BP,2.2UF/100V,M;2 |
| C811 | CE2262AM21 | EC,22UF/100V,M;2 |
| C812 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C813 | CC8201HK28 | CC,82PF/50V,K;2 |
| C814 | CB2252AM26 | BP,2.2UF/100V,M;2 |
| C815 | CE2262AM21 | EC,22UF/100V,M;2 |
| C816 | CC0151HZ24 | CC,0.1UF/50V,Z;2 |
| C817 | CC8201HK28 | CC,82PF/50V,K;2 |
| C818 | CB2252AM26 | BP,2.2UF/100V,M;2 |
| C819 | CE2262AM21 | EC,22UF/100V,M;2 |

| Position | Parts No. | Description |
|---|---|---|
| CRT | XHF4020103 | CRT 17" (ASC 64K) M41KV-Z180X14(UQ) |
| CRT & FRONT FRAME | 3L021N12N9 | RUBBER WASHER φ7*φ20.5*2.5 mmT |
| CRT & FRONT FRAME | 4T006N10N6 | WASHER ID#6.2 OD#20t1.6mm |
| CRT & FRONT FRAME | 4T525N08N7 | SCREW TAP #5*25mm NI |
| CRT GND | ZG02315010 | GT PIN 2.3#15mm 1.2φ |
| CRT PCB | PDU1022012 | CRT PCB DH-1764 REV:2.0 |
| CRT PCB use | 1T160N26NA | SHIELD CRT PCB SPTE t=0.3mm |
| CRT use | 1T0K2N26N0 | SHIELD CRT A SPTE t=0.3mm DH-1764 |
| CRT use | NEBRAIDW09 | BRAID WIRE ASS'Y DH-1764 |
| CRT use BRAID WIRE ASS'Y | 4W522N12N8 | SPRING #5*22mm |
| CRT use BRAID WIRE ASS'Y | KW160061J0 | WIRE 160mm BLACK UL1015# 222.36φ |
| CRT use BRAID WIRE ASS'Y | KW280061M1 | WIRE 280mm BLACK UL1015# 22 K |
| CRT use BRAID WIRE ASS'Y | KW350051J7 | WIRE 350mm BLACK UL1015 #18+2.36φ |
| CRT use BRAID WIRE ASS'Y | KQ1521W0I7 | BRAID WIRE 1520mm 17" |
| CX201 | SX80000C*6 | CRYSTAL 8.000MHZ |
| D101 | DB3SBA49Z2 | DIODE BRIDGE D3SBA60 (SHINDENGEN) |
| D101(substitute) | DB406*69Z7 | DIODE RBV-406 |
| D102 | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| D102(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| D102(substitute) | DN41482819 | DIODE 1N4148 (TFK) |
| D102(substitute) | DN41483118 | DIODE 1N4148 |
| D103 | DT52M*28Z1 | DIODE BYT52M (TFK) |
| D105 | DM33G*26Z1 | DIODE BYD33G 400V (PHILIPS) |
| D106 | DM33G*26Z1 | DIODE BYD33G 400V (PHILIPS) |
| D107 | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| D107(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| D107(substitute) | DN41482819 | DIODE 1N4148 (TFK) |
| D107(substitute) | DN41483118 | DIODE 1N4148 |
| D108 | DZ16042607 | DIODE(Z) 16V 1/2W (PHILIPS) |
| D108(substitute) | DZ16042807 | DIODE(Z) 16V 1/2W |
| D108(substitute) | DZ16043106 | DIODE(Z) 16V 1/2W |
| D110 | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| D110(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| D110(substitute) | DN41482819 | DIODE 1N4148 (TFK) |
| D110(substitute) | DN41483118 | DIODE 1N4148 |
| D111 | 1C046N48N2 | HEAT SINK EXTRU 1.2t*27 *46mm DH1764 |
| D111 | D9540642Z2 | DIODE FUF5406-600V(FAGOR) |
| D111 | NEUF540600 | FUF5406-600V ASS'Y |
| D112 | D*0DF245Z3 | DIODE 30DF2-200V(IR) |
| D112(substitute) | D9540242Z0 | DIODE FUF5402-200V |
| D113 | DKDQ0645Z1 | DIODE 31DQ06 (IR) |
| D113(substitute) | DSRK4669Z3 | DIODE RK 46 (SANKEN) |
| D114 | D9400442Z1 | DIODE FUF4004-400V(FAGOR) |
| D115 | DT52M*28Z1 | DIODE BYT52M (TFK) |
| D201 | DZ51C42602 | DIODE(Z) 5.1V 1/2W (PHILIPS) |
| D201(substitute) | DZ51C42802 | DIODE(Z) 5.1V 1/2W |
| D201(substitute) | DZ51C43101 | DIODE(Z) 5.1V 1/2W |
| D202 | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| D202(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| D202(substitute) | DN41482819 | DIODE 1N4148 (TFK) |
| D202(substitute) | DN41483118 | DIODE 1N4148 |
| D203 | YC0G255010 | LED G/Y 5φ 2.54mm L-59GYW |
| D203 use | 2F018N08N1 | LED HOUSING (3PIN) DH-1570 17.5mmH |
| D204 | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| D204(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| D204(substitute) | DN41482819 | DIODE 1N4148 (TFK) |
| D204(substitute) | DN41483118 | DIODE 1N4148 |
| D205 | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| D205(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| D205(substitute) | DN41482819 | DIODE 1N4148 (TFK) |

| Position | Parts No. | Description |
|---|---|---|
| J090 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J091 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J092 | JW060073*2 | JUMPER WIRE AUTO 0.6*17.5mm |
| J093 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J094 | JW060073*2 | JUMPER WIRE AUTO 0.6*17.5mm |
| J095 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J096 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J097 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J098 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J099 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J100 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J101 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J102 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J103 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J104 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J105 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J106 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J107 | JW060023*2 | JUMPER WIRE AUTO 0.6*5mm |
| J108 | JW060033*6 | JUMPER WIRE AUTO 0.6*7.5mm |
| J109 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J110 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J111 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J112 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J113 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J113 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J114 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J115 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J116 | JW060033*6 | JUMPER WIRE AUTO 0.6*7.5mm |
| J117 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J118 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J119 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J120 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J121 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J122 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J123 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J124 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J125 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J126 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J127 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J128 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J129 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J130 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J131 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J132 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J133 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J134 | JW060033*6 | JUMPER WIRE AUTO 0.6*7.5mm |
| J135 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J136 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J137 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J138 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J139 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J140 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J141 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J142 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J143 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J144 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J145 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J146 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J147 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J148 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J149 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J150 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J151 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J152 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J153 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J155 | JW060033*6 | JUMPER WIRE AUTO 0.6*7.5mm |
| J156 | JW060033*6 | JUMPER WIRE AUTO 0.6*7.5mm |
| J157 | JW060033*6 | JUMPER WIRE AUTO 0.6*7.5mm |
| J159 | JW060083*6 | JUMPER WIRE AUTO 0.6*20mm |
| J160 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J161 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |

| Position | Parts No. | Description |
|---|---|---|
| J165 | JW060073*2 | JUMPER WIRE AUTO 0.6*17.5mm |
| J166 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J167 | JW060033*6 | JUMPER WIRE AUTO 0.6*7.5mm |
| J168 | JW060023*2 | JUMPER WIRE AUTO 0.6*5mm |
| J169 | JW060023*2 | JUMPER WIRE AUTO 0.6*5mm |
| J171 | JW060033*6 | JUMPER WIRE AUTO 0.6*7.5mm |
| J172 | JW060033*6 | JUMPER WIRE AUTO 0.6*7.5mm |
| J173 | JW060033*6 | JUMPER WIRE AUTO 0.6*7.5mm |
| J174 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J174 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J175 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J176 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J177 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J178 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J179 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J180 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J181 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J182 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J183 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J184 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J185 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J186 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J187 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J188 | JW060023*2 | JUMPER WIRE AUTO 0.6*5mm |
| J189 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J192 | JW060073*2 | JUMPER WIRE AUTO 0.6*17.5mm |
| J195 | JW060083*6 | JUMPER WIRE AUTO 0.6*20mm |
| J196 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J197 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J198 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J199 | JW060073*2 | JUMPER WIRE AUTO 0.6*17.5mm |
| J200 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J202 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J203 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J204 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J801 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J802 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J803 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J804 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J805 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J806 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J807 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J808 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J809 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J811 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J812 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J813 | JW0600A3*8 | JUMPER WIRE AUTO 0.6*25mm |
| K402 | KCC3381048 | CANCELING COIL 1280mm DH-1764 |
| K402 use | 2Y295N12N8 | CABEL TIE 295mm |
| L102 | LFL0430*13 | LINE FILTER 25mH DN-1564G |
| L103 | LAL012C*27 | AC FILTER 1.0mH CT-1469 FCC |
| L104 | LGC1764*39 | DEGAUSSING COIL 0.45φ/75Ts(L=1285mm) |
| L105 | LC12035C30 | BEAD CORE 3.5*9mm |
| L106 | LC12035C52 | BEAD CORE 3.5*4.5 |
| L107 | LC12035C52 | BEAD CORE 3.5*4.5 |
| L108 | LC12035C30 | BEAD CORE 3.5*9mm |
| L109 IN | LC18006014 | BEAD CORE 6*10 CN-1470 |
| L111 | LC12035C30 | BEAD CORE 3.5*9mm |
| L201 | LC12035C30 | BEAD CORE 3.5*9mm |
| L401 | LRC145*702 | ROTATION COIL 136Ω/0.2φ 500 TS |
| L402 | LLL049C*19 | LINEAR COIL 4.9uH DH-1764 |
| L403 | LLL017C*17 | LINEAR COIL DH-1764 3.5uH/-3A |
| L405 | LKL0222*47 | CHOKE-CENTER DRWW 10x 152.2mH DH-1764 |
| L406 | LKL0111*10 | CHOKE 110uH DH-1764 |
| L407 | LC18006014 | BEAD CORE 6*10 CN-1470 |
| L408 | LKL0100*13 | CHOKE COIL 10uH |

| Position | Parts No. | Description |
|---|---|---|
| GND 4 | KW230061M6 | WIRE 230mm BLACK UL1015# 22,K DH-1764 |
| GND 5 | KW160061N4 | WIRE 160mm BLACK UL1015# 22 K,K |
| GND 7 | KW280061M1 | WIRE 280mm BLACK UL1015# 22 K |
| GND.WIRE use | 4T306B01B2 | SCREW TAP 3*6mm W/H NI |
| GND1 | ZG02315010 | GT PIN 2.3#15mm 1.2φ |
| GND3 | ZG02315010 | GT PIN 2.3#15mm 1.2φ |
| IC101 | ILK3842895 | IC UC3842AM(LINFINITY) |
| IC101(substitute) | IL03842872 | IC IP3842N (SEMELAB) |
| IC101(substitute) | ILK3842740 | IC UC3842AN |
| IC201 | IUM68P6396 | IC UM68P60 (UMC) |
| IC201 use | BSI1402**7 | IC SOCKET 40P (2.54mm) |
| IC201(substitute) | IUM68P639A | IC UM68P-0A0(UM68P60 |
| IC202 | IFT520C856 | IC PST520C (MITSUMI) |
| IC202(substitute) | IFT572C852 | IC PST572C (MITSUMI) |
| IC203 | IS7C14*26D | IC 74HC14 DIP (PHILIPS) |
| IC204 | IBTV0040E9 | IC MTV004 DH-1764 |
| IC204 | NEMTV00400 | MTV004 ASS'Y |
| IC204(substitute) | NE41540P00 | MC141540P ASS'Y |
| IC205 | ISEC04*614 | IC AT24C04-10PC (MOSEL) |
| IC205 use | BSI1082**3 | IC SOCKET 8P (2.54mm) |
| IC205(substitute) | ISELC04829 | IC 24LC04B/P (MICROC |
| IC301 | 1A050N14L5 | HEAT SINK EXTRU 50*21W *50mmH(BLACK) |
| IC301 | 4T306B01B2 | SCREW TAP 3*6mm W/H NI |
| IC301 | IFI8172536 | IC TDA8172 (SGS) |
| IC301 | NEDA817203 | TDA8172 ASS'Y |
| IC301(substitute) | IAI9302535 | IC TDA9302H (SGS) |
| IC302 | IS7C74*01D | IC SN74HC74N DIP (TI) |
| IC302(substitute) | IS7C74*26D | IC 74HC74 DIP |
| IC302(substitute) | IS7C74*32D | IC TC74HC74 DIP |
| IC302(substitute) | IS7C74*882 | IC CD74HC74E DIP |
| IC401 | IFI9103530 | IC TDA9103 (SGS) |
| IC401(substitute) | IFI7778531 | IC STV7778 ALL MODEL |
| IC402 | 1A013N11N4 | HEAT SINK TO-220 |
| IC402 | 4T306B01B2 | SCREW TAP 3*6mm W/H NI |
| IC402 | IR7812*222 | IC MC7812CT (MOTOROLA) |
| IC402 | NELM781204 | LM7812 ASS'Y |
| IC402(substitute) | IL7812*537 | IC L7812CV (SGS) |
| IC402(substitute) | IR7812*022 | IC LM7812 (NS) |
| IC402(substitute) | IR7812*311 | IC 7812P (HITACHI) |
| IC402(substitute) | IR7812*800 | IC HSMC7812 (HMC) |
| IC402(substitute) | IRA7812652 | IC KA7812 (SAMSUNG) |
| IC403 | IU1406H300 | IC UPC1406HA (NEC) |
| IC404 | IFA358*653 | IC KA358 (SAMSUNG) |
| IC404(substitute) | IF2358N222 | IC LMT358N (MOTOROLA |
| IC404(substitute) | IF2358N533 | IC LM358N |
| IC404(substitute) | IR17358319 | IC HA17358 (HITACHI) |
| IC601 | IA21281027 | IC LM1281 (N/N.S) |
| IC701 | ISELC21823 | IC 24LC21/P (MICROCHIP) |
| IC701 use | BSI1082**3 | IC SOCKET 8P (2.54mm) |
| IC701(substitute) | IQEC211538 | IC ST24LC211 DH-1764 |
| J001 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J002 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J003 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J004 | JW060083*6 | JUMPER WIRE AUTO 0.6*20mm |
| J005 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J006 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J007 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J008 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J009 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J010 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J011 | LC12035C52 | BEAD CORE 3.5*4.5 |
| J012 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J013 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J014 | JW060033*6 | JUMPER WIRE AUTO 0.6*7.5mm |
| J015 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J016 | JW060033*6 | JUMPER WIRE AUTO 0.6*7.5mm |
| J017 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J018 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J019 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J020 | JW060033*6 | JUMPER WIRE AUTO 0.6*7.5mm |
| J021 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J022 | JW060033*6 | JUMPER WIRE AUTO 0.6*7.5mm |
| J023 | JW060083*6 | JUMPER WIRE AUTO 0.6*20mm |
| J024 | JW060083*6 | JUMPER WIRE AUTO 0.6*20mm |
| J025 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J026 | JW060073*2 | JUMPER WIRE AUTO 0.6*17.5mm |
| J027 | JW060073*2 | JUMPER WIRE AUTO 0.6*17.5mm |
| J028 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J029 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J030 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J031 | JW060073*2 | JUMPER WIRE AUTO 0.6*17.5mm |
| J032 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J033 | JW060073*2 | JUMPER WIRE AUTO 0.6*17.5mm |
| J034 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J035 | JW060073*2 | JUMPER WIRE AUTO 0.6*17.5mm |
| J036 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J037 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J038 | JW060073*2 | JUMPER WIRE AUTO 0.6*17.5mm |
| J039 | JW060023*2 | JUMPER WIRE AUTO 0.6*5mm |
| J040 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J041 | JW060083*6 | JUMPER WIRE AUTO 0.6*20mm |
| J042 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J043 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J044 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J045 | JW060083*6 | JUMPER WIRE AUTO 0.6*20mm |
| J046 | JW060033*6 | JUMPER WIRE AUTO 0.6*7.5mm |
| J047 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J048 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J049 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J050 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J051 | JW060083*6 | JUMPER WIRE AUTO 0.6*20mm |
| J052 | JW060083*6 | JUMPER WIRE AUTO 0.6*20mm |
| J053 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J054 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J055 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J056 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J057 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J058 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J059 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J060 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J061 | JW0600A3*8 | JUMPER WIRE AUTO 0.6*20mm |
| J062 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J063 | JW0600A3*8 | JUMPER WIRE AUTO 0.6*20mm |
| J064 | JW060083*6 | JUMPER WIRE AUTO 0.6*20mm |
| J065 | JW060083*6 | JUMPER WIRE AUTO 0.6*20mm |
| J066 | JW060083*6 | JUMPER WIRE AUTO 0.6*20mm |
| J067 | JW060083*6 | JUMPER WIRE AUTO 0.6*20mm |
| J068 | JW060083*6 | JUMPER WIRE AUTO 0.6*20mm |
| J069 | JW060083*6 | JUMPER WIRE AUTO 0.6*20mm |
| J070 | JW060083*6 | JUMPER WIRE AUTO 0.6*20mm |
| J071 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J072 | JW060083*6 | JUMPER WIRE AUTO 0.6*20mm |
| J073 | JW060083*6 | JUMPER WIRE AUTO 0.6*20mm |
| J074 | JW060083*6 | JUMPER WIRE AUTO 0.6*20mm |
| J075 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J076 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J077 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J078 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J079 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J080 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J081 | JW060073*2 | JUMPER WIRE AUTO 0.6*17.5mm |
| J082 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J083 | JW060083*6 | JUMPER WIRE AUTO 0.6*20mm |
| J084 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J085 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J086 | JW060053*4 | JUMPER WIRE AUTO 0.6*12.5mm |
| J087 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |
| J088 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| J089 | JW060043*0 | JUMPER WIRE AUTO 0.6*10mm |

| Position | Parts No. | Description |
|---|---|---|
| Q416 | QC945C1656 | Tr KSC945C-YTA (SAMSUNG) (TAPING) |
| Q416(substitute) | QC18151327 | Tr 2SC1815-GR |
| Q416(substitute) | QC1815Y656 | Tr KSC1815-YTA (SAMSUNG) |
| Q416(substitute) | QC945P1227 | Tr LC945P (MOTOROLA) |
| Q416(substitute) | QC945P1300 | Tr 2SC945P (NEC) |
| Q416(substitute) | QC945P1994 | Tr KTC945-P (KEC) |
| Q417 | QA733P*307 | Tr 2SA733P (NEC) |
| Q417(substitute) | QA200Y1998 | Tr KTA200-Y (KEC) |
| Q417(substitute) | QA673*1312 | Tr 2SA673 (HITACHI) |
| Q417(substitute) | QA733P1301 | Tr 2SA733P (NEC) |
| Q417(substitute) | QM733*1650 | TRANSISTOR PNP (KSA7 |
| Q417(substitute) | QM733C1659 | Tr KSA733C-YTA (SAMS |
| Q418 | 1A023F14N6 | HEAT SINK EXTRU (WHITE) 23*15.5*25mmH |
| Q418 | 4T308N01N4 | SCREW TAP #3*8mm NI W/H |
| Q418 | NESK213400 | 2SK2134 ASS'Y |
| Q418 | SMF10UM298 | MOSFET FS10UM-5 (MITSUBISHI) |
| Q418(substitute) | NEIRF63002 | IRF630 ASS'Y |
| Q418(substitute) | SMI630*653 | MOSFET IRF630 |
| Q418(substitute) | SMIS630651 | MOSFET IRFS630 |
| Q418(substitute) | SMK1221331 | MOSFET 2SK1221(FUJI) |
| Q418(substitute) | SMK2134307 | MOSFET 2SK2134 (NEC) |
| Q419 | QC945C1656 | Tr KSC945C-YTA (SAMSUNG) (TAPING) |
| Q419(substitute) | QC18151327 | Tr 2SC1815-GR |
| Q419(substitute) | QC1815Y656 | Tr KSC1815-YTA (SAMSUNG) |
| Q419(substitute) | QC945P1227 | Tr LC945P (MOTOROLA) |
| Q419(substitute) | QC945P1300 | Tr 2SC945P (NEC) |
| Q419(substitute) | QC945P1994 | Tr KTC945-P (KEC) |
| Q420 | QA733P*307 | Tr 2SA733P (NEC) |
| Q420(substitute) | QA200Y1998 | Tr KTA200-Y (KEC) |
| Q420(substitute) | QA673*1312 | Tr 2SA673 (HITACHI) |
| Q420(substitute) | QA733P1301 | Tr 2SA733P (NEC) |
| Q420(substitute) | QM733*1650 | TRANSISTOR PNP (KSA7 |
| Q420(substitute) | QM733C1659 | Tr KSA733C-YTA (SAMS |
| Q421 | Q114ES*711 | Tr DTC114ES (ROHM) |
| Q421(substitute) | QC3402*231 | Tr 2SC3402 (SANYO) |
| Q422 | QF423*1809 | Tr HBF423 Hi-Sincerity |
| Q422(substitute) | QF423**227 | Tr BF423 (MOTOROLA) |
| Q422(substitute) | QF423**261 | Tr BF423 (PHILIPS) |
| Q422(substitute) | QF423**322 | Tr BF423 (TOSHIBA) |
| Q422(substitute) | QF423*1265 | Tr BF423 (PHILIPS) |
| Q422(substitute) | QF423L1261 | Tr BF423L (PHILIPS) |
| Q423 | SMIS630651 | MOSFET IRFS630 (SAMSUNG) |
| Q423(substitute) | SMF10UM298 | MOSFET FS10UM-5 |
| Q423(substitute) | SMI630*225 | MOSFET IRF630 |
| Q423(substitute) | SMI630*653 | MOSFET IRF630 |
| Q423(substitute) | SMK2134307 | MOSFET 2SK2134 (NEC) |
| Q423(substitute) | SMK2161237 | MOSFET 2SK2161 |
| Q425 | QC945C1656 | Tr KSC945C-YTA (SAMSUNG) (TAPING) |
| Q425(substitute) | QC18151327 | Tr 2SC1815-GR |
| Q425(substitute) | QC1815Y656 | Tr KSC1815-YTA (SAMS |
| Q425(substitute) | QC945P1227 | Tr LC945P (MOTOROLA) |
| Q425(substitute) | QC945P1300 | Tr 2SC945P (NEC) |
| Q425(substitute) | QC945P1994 | Tr KTC945-P (KEC) |
| Q426 | QC1921*318 | Tr 2SC1921 (HITACHI) |
| Q426(substitute) | QC19211312 | Tr 2SC1921 (HITACHI) |
| Q427 | QRA13**225 | Tr MPSA13 (MOTOROLA) |
| Q602 | QA733P*307 | Tr 2SA733P (NEC) |
| Q602(substitute) | QA200Y1998 | Tr KTA200-Y (KEC) |
| Q602(substitute) | QA673*1312 | Tr 2SA673 (HITACHI) |
| Q602(substitute) | QA733P1301 | Tr 2SA733P (NEC) |
| Q602(substitute) | QM733*1650 | TRANSISTOR PNP (KSA7 |
| Q602(substitute) | QM733C1659 | Tr KSA733C-YTA (SAMS |

| Position | Parts No. | Description |
|---|---|---|
| Q603 | QC945C1656 | Tr KSC945C-YTA (SAMSUNG) (TAPING) |
| Q603(substitute) | QC18151327 | Tr 2SC1815-GR |
| Q603(substitute) | QC1815Y656 | Tr KSC1815-YTA (SAMS |
| Q603(substitute) | QC945P1227 | Tr LC945P (MOTOROLA) |
| Q603(substitute) | QC945P1300 | Tr 2SC945P (NEC) |
| Q603(substitute) | QC945P1994 | Tr KTC945-P (KEC) |
| Q604 | QC945C1656 | Tr KSC945C-YTA (SAMSUNG) (TAPING) |
| Q604(substitute) | QC18151327 | Tr 2SC1815-GR |
| Q604(substitute) | QC1815Y656 | Tr KSC1815-YTA (SAMS |
| Q604(substitute) | QC945P1227 | Tr LC945P (MOTOROLA) |
| Q604(substitute) | QC945P1300 | Tr 2SC945P (NEC) |
| Q604(substitute) | QC945P1994 | Tr KTC945-P (KEC) |
| Q801 | 1A023F14N6 | HEAT SINK EXTRU (WHITE) 23*15.5*25mmH |
| Q801 | 4T308N01N4 | SCREW TAP #3*8mm NI W/H |
| Q801 | NESC268211 | KSC2682 ASS'Y |
| Q801 | QK2682*658 | Tr KSC2682-O (SAMSUNG) |
| Q801(substitute) | QK2682*808 | Tr HSC2682 Hi-Sincerity |
| Q801(substitute) | QK26821652 | Tr KSC2682-Y (SAMSUN |
| Q801(substitute) | QK26821802 | Tr HSC2682 Hi-Sincerity |
| Q802 | QP23691267 | Tr PH2369 (PHILIPS) |
| Q802(substitute) | QP23691801 | Tr HPH2369 Hi-Sincerity |
| Q802(substitute) | QR23691225 | TRANSISTOR NPN MPS23 |
| Q803 | QB647A1311 | Tr 2SB647A (HITACHI) |
| Q803(substitute) | QM916*1656 | TRANSISTOR KSA916-Y |
| Q804 | 1A023F14N6 | HEAT SINK EXTRU (WHITE) 23*15.5*25mmH |
| Q804 | 4T308N01N4 | SCREW TAP #3*8mm NI W/H |
| Q804 | NESC268211 | KSC2682 ASS'Y |
| Q804 | QK2682*658 | Tr KSC2682-O (SAMSUNG) |
| Q804(substitute) | QK2682*808 | Tr HSC2682 Hi-Sincerity |
| Q804(substitute) | QK26821652 | Tr KSC2682-Y (SAMSUNG) |
| Q804(substitute) | QK26821802 | Tr HSC2682 Hi-Sincerity |
| Q805 | QP23691267 | Tr PH2369 (PHILIPS) |
| Q805(substitute) | QP23691801 | Tr HPH2369 Hi-Sincerity |
| Q805(substitute) | QR23691225 | TRANSISTOR NPN MPS23 |
| Q806 | QB647A1311 | Tr 2SB647A (HITACHI) |
| Q806(substitute) | QM916*1656 | TRANSISTOR KSA916-Y |
| Q807 | 1A023F14N6 | HEAT SINK EXTRU (WHITE) 23*15.5*25mmH |
| Q807 | 4T308N01N4 | SCREW TAP #3*8mm NI W/H |
| Q807 | NESC268211 | KSC2682 ASS'Y |
| Q807 | QK2682*658 | Tr KSC2682-O (SAMSUNG) |
| Q807(substitute) | QK2682*808 | Tr HSC2682 Hi-Sincerity |
| Q807(substitute) | QK26821652 | Tr KSC2682-Y (SAMSUN |
| Q807(substitute) | QK26821802 | Tr HSC2682 Hi-Sincerity |
| Q808 | QP23691267 | Tr PH2369 (PHILIPS) |
| Q808(substitute) | QP23691801 | Tr HPH2369 Hi-Sincerity |
| Q808(substitute) | QR23691225 | TRANSISTOR NPN MPS23 |
| Q809 | QB647A1311 | Tr 2SB647A (HITACHI) |
| Q809(substitute) | QM916*1656 | TRANSISTOR KSA916-Y |
| Q810 | QC27051325 | Tr 2SC2705 (TOSHIBA) |
| Q810(substitute) | QC19211312 | Tr 2SC1921 (HITACHI) |
| R103 | RA:474IJ49 | RES,470KΩ,1/2W,J;4 |
| R104 | RG*140SNZ6 | PTC 14Ω+/-20%(2 pin) |
| R105 | RH*50C**16 | NTC SCK-055 5Ω |
| R105(substitute) | RH*70C**Z8 | NTC 7Ω |
| R106 | RA:105IJ45 | RES,1MΩ,1/2W,J;4 |
| R107 | RA*103GJ41 | RES,10KΩ,1/4W,J;4 |
| R108 | RC*1542JS6 | RES(M),150KΩ,2W,J;S |
| R109 | RC*2233JU4 | RES(M),22KΩ,3W,J;U |
| R111 | RA:102IJ46 | RES,1KΩ,1/2W,J;4 |
| R112 | RA*103GJ41 | RES,10KΩ,1/4W,J;4 |
| R113 | RA*223GJ46 | RES,22KΩ,1/4W,J;4 |
| R114 | RA*224GJ49 | RES,220KΩ,1/4W,J;4 |
| R115 | RA*392GJ48 | RES,3.9KΩ,1/4W,J;4 |
| R116 | RA*562GJ44 | RES,5.6KΩ,1/4W,J;4 |

| Position | Parts No. | Description |
|---|---|---|
| L409 IN | LC12035C30 | BEAD CORE 3.5*9mm |
| L601 | ZEG*470007 | EMI FILTER ZJSR5101-470-TA |
| L601(substitute) | ZEG*101004 | EMI FILTER ZJSR5101 |
| L602 | ZEG*470007 | EMI FILTER ZJSR5101-470-TA |
| L602(substitute) | ZEG*101004 | EMI FILTER ZJSR5101 |
| L603 | ZEG*470007 | EMI FILTER ZJSR5101-470-TA |
| L603(substitute) | ZEG*101004 | EMI FILTER ZJSR5101 |
| L604 | ZEG*470007 | EMI FILTER ZJSR5101-470-TA |
| L604(substitute) | ZEG*101004 | EMI FILTER ZJSR5101 |
| L605 | ZEG*470007 | EMI FILTER ZJSR5101-470-TA |
| L605(substitute) | ZEG*101004 | EMI FILTER ZJSR5101 |
| L801 | LC12035C52 | BEAD CORE 3.5*4.5 |
| L802 | LKL2020*19 | CHOKE UP 20Ts/DOWN 20Ts |
| L803 | LKL2020*19 | CHOKE UP 20Ts/DOWN 20Ts |
| L804 | LKL2020*19 | CHOKE UP 20Ts/DOWN 20Ts |
| MAIN PCB use | 2F009N33N9 | PCB SPACER SUPPORTS |
| MAIN PCB | PDU1012253 | MAIN PCB REV:2.2 DH-1764 |
| Q101 | 1A050N14M1 | HEAT SINK EXTRU 50*21W*60mmH(BLACK) |
| Q101 | 4T308N01N4 | SCREW TAP #3*8mm NI W/H |
| Q101 | NEFS7TM001 | FS7TM-12 ASS'Y |
| Q101 | SMF7TM*298 | MOSFET FS7TM-12 (MITSUBISHI) |
| Q101(substitute) | SMF7KM*290 | MOSFET FS7KM-12 |
| Q102 | SSA1006**4 | SCR MCR100-6 400V NO TAPING |
| Q103 | Q114ES*711 | Tr DTC114ES (ROHM) |
| Q103(substitute) | QC3402*231 | Tr 2SC3402 (SANYO) |
| Q104 | QW145*1809 | Tr HTL145 |
| Q201 | QC1213C317 | Tr 2SC1213A(HITACHI) |
| Q201(substitute) | QC1959*324 | Tr 2SC1959 (TOSHIBA) |
| Q202 | QC945C1656 | Tr KSC945C-YTA (SAMSUNG) (TAPING) |
| Q202(substitute) | QC18151327 | Tr 2SC1815-GR |
| Q202(substitute) | QC1815Y656 | Tr KSC1815-YTA (SAMSUNG) |
| Q202(substitute) | QC945P1227 | Tr LC945P (MOTOROLA) |
| Q202(substitute) | QC945P1300 | Tr 2SC945P (NEC) |
| Q202(substitute) | QC945P1994 | Tr KTC945-P (KEC) |
| Q203 | QA715C*316 | Tr 2SA715C (HITCH) (PNP NO TAPING) |
| Q203(substitute) | QB1009*718 | TRANSISTOR 2SB1009R |
| Q203(substitute) | QB772Q*303 | Tr 2SB772Q (NEC) |
| Q203(substitute) | QSB772*655 | TRANSISTOR DSB772-Y |
| Q204 | QC945C1656 | Tr KSC945C-YTA (SAMSUNG) (TAPING) |
| Q204(substitute) | QC18151327 | Tr 2SC1815-GR |
| Q204(substitute) | QC1815Y656 | Tr KSC1815-YTA (SAMSUNG) |
| Q204(substitute) | QC945P1227 | Tr LC945P (MOTOROLA) |
| Q204(substitute) | QC945P1300 | Tr 2SC945P (NEC) |
| Q204(substitute) | QC945P1994 | Tr KTC945-P (KEC) |
| Q205 | QA715C*316 | Tr 2SA715C (HITCH) (PNP NO TAPING) |
| Q205(substitute) | QB1009*718 | TRANSISTOR 2SB1009R |
| Q205(substitute) | QB772Q*303 | Tr 2SB772Q (NEC) |
| Q205(substitute) | QSB772*655 | TRANSISTOR DSB772-Y |
| Q206 | QC945C1656 | Tr KSC945C-YTA (SAMSUNG) (TAPING) |
| Q206(substitute) | QC18151327 | Tr 2SC1815-GR |
| Q206(substitute) | QC1815Y656 | Tr KSC1815-YTA (SAMSUNG) |
| Q206(substitute) | QC945P1227 | Tr LC945P (MOTOROLA) |
| Q206(substitute) | QC945P1300 | Tr 2SC945P (NEC) |
| Q206(substitute) | QC945P1994 | Tr KTC945-P (KEC) |
| Q207 | QC945C1656 | Tr KSC945C-YTA (SAMSUNG) (TAPING) |
| Q207(substitute) | QC18151327 | Tr 2SC1815-GR |
| Q207(substitute) | QC1815Y656 | Tr KSC1815-YTA (SAMSUNG) |
| Q207(substitute) | QC945P1227 | Tr LC945P (MOTOROLA) |
| Q207(substitute) | QC945P1300 | Tr 2SC945P (NEC) |
| Q207(substitute) | QC945P1994 | Tr KTC945-P (KEC) |
| Q208 | QA733P*307 | Tr 2SA733P (NEC) |
| Q208(substitute) | QA200Y1998 | Tr KTA200-Y (KEC) |
| Q208(substitute) | QA673*1312 | Tr 2SA673 (HITACHI) |
| Q208(substitute) | QA733P1301 | Tr 2SA733P (NEC) |
| Q208(substitute) | QM733*1650 | TRANSISTOR PNP (KSA7 |
| Q208(substitute) | QM733C1659 | Tr KSA733C-YTA (SAMS |
| Q301 | QN39041021 | Tr 2N3904 (NS) |
| Q301(substitute) | QN3904*227 | Tr 2N3904 (MOTOROLA) |
| Q301(substitute) | QN39041659 | Tr 2N3904 (SAMSUNG) |
| Q302 | QN39041021 | Tr 2N3904 (NS) |
| Q302(substitute) | QN3904*227 | Tr 2N3904 (MOTOROLA) |
| Q302(substitute) | QN39041659 | Tr 2N3904 (SAMSUNG) |
| Q303 | QN39041021 | Tr 2N3904 (NS) |
| Q303(substitute) | QN3904*227 | Tr 2N3904 (MOTOROLA) |
| Q303(substitute) | QN39041659 | Tr 2N3904 (SAMSUNG) |
| Q304 | QC945C1656 | Tr KSC945C-YTA (SAMSUNG) (TAPING) |
| Q304(substitute) | QC18151327 | Tr 2SC1815-GR |
| Q304(substitute) | QC1815Y656 | Tr KSC1815-YTA (SAMSUNG) |
| Q304(substitute) | QC945P1227 | Tr LC945P (MOTOROLA) |
| Q304(substitute) | QC945P1300 | Tr 2SC945P (NEC) |
| Q304(substitute) | QC945P1994 | Tr KTC945-P (KEC) |
| Q401 | CM0141HJ22 | MEF,0.01UF/50V,J;2 |
| Q402 | SMK941*320 | MOSFET 2SK941 (TOSHIBA) |
| Q403 | 1A0K2N15NB | HEAT SINK AL t=2.0mm DH-17/DL17MU |
| Q403 | 4T308N01N4 | SCREW TAP #3*8mm NI W/H |
| Q403 | DY359X26Z1 | DIODE BY359X-1500V (PHILIPS) |
| Q403 | NESC504801 | 2SC5048 ASS'Y |
| Q403 | QC5048*324 | Tr 2SC5048 (TOSHIBA) |
| Q403(substitute) | DY359F26Z7 | DIODE BY359F-1500V |
| Q404 | QA673*1312 | Tr 2SA673 (HITACHI) |
| Q405 | 1A050N14L5 | HEAT SINK EXTRU 50*21W*50mmH(BLACK) |
| Q405 | 4T308N01N4 | SCREW TAP #3*8mm NI W/H |
| Q405 | NED2107W01 | 2SD2107W-C ASS'Y |
| Q405 | QD2107W318 | Tr 2SD2107W-C (HITACHI) |
| Q406 | QA673*1312 | Tr 2SA673 (HITACHI) |
| Q408 | QC1213C317 | Tr 2SC1213A(HITACHI) |
| Q408(substitute) | QC1959*324 | Tr 2SC1959 (TOSHIBA) |
| Q409 | QA673*1312 | Tr 2SA673 (HITACHI) |
| Q410 | QA733P*307 | Tr 2SA733P (NEC) |
| Q410(substitute) | QA200Y1998 | Tr KTA200-Y (KEC) |
| Q410(substitute) | QA673*1312 | Tr 2SA673 (HITACHI) |
| Q410(substitute) | QA733P1301 | Tr 2SA733P (NEC) |
| Q410(substitute) | QM733*1650 | TRANSISTOR PNP (KSA7 |
| Q410(substitute) | QM733C1659 | Tr KSA733C-YTA (SAMS |
| Q411 | QC1213C317 | Tr 2SC1213A(HITACHI) |
| Q411(substitute) | QC1959*324 | Tr 2SC1959 (TOSHIBA) |
| Q412 | QC1162*311 | Tr 2SC1162C(HITACHI) |
| Q413 | QA715C*316 | Tr 2SA715C (HITCH) (PNP NO TAPING) |
| Q413(substitute) | QB1009*718 | TRANSISTOR 2SB1009R |
| Q413(substitute) | QB772Q*303 | Tr 2SB772Q (NEC) |
| Q413(substitute) | QSB772*655 | TRANSISTOR DSB772-Y |
| Q414 | QC945C1656 | Tr KSC945C-YTA (SAMSUNG) (TAPING) |
| Q414(substitute) | QC18151327 | Tr 2SC1815-GR |
| Q414(substitute) | QC1815Y656 | Tr KSC1815-YTA (SAMSUNG) |
| Q414(substitute) | QC945P1227 | Tr LC945P (MOTOROLA) |
| Q414(substitute) | QC945P1300 | Tr 2SC945P (NEC) |
| Q414(substitute) | QC945P1994 | Tr KTC945-P (KEC) |
| Q415 | QW145*1809 | Tr HTL145 Hi-Sincerity |

| Position | Parts No. | Description |
|---|---|---|
| R429 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R430 | RA*102EJ28 | RES,1KΩ,1/6W,J;2 |
| R431 | RA*103GJ41 | RES,10KΩ,1/4W,J;4 |
| R432 | RA*102GJ48 | RES,1KΩ,1/4W,J;4 |
| R433 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R434 | RA*331GJ43 | RES,330Ω,1/4W,J;4 |
| R435 | RA*223GJ46 | RES,22KΩ,1/4W,J;4 |
| R436 | RA*153EJ21 | RES,15KΩ,1/6W,J;2 |
| R437 | RA*203GJ42 | RES,20KΩ,1/4W,J;4 |
| R438 | RA*273EJ26 | RES,27KΩ,1/6W,J;2 |
| R439 | RA*473EJ28 | RES,47KΩ,1/6W,J;2 |
| R440 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R442 | RA*393GJ41 | RES,39KΩ,1/4W,J;4 |
| R443 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R445 | RA*561GJ41 | RES,560Ω,1/4W,J;4 |
| R446 | RA*223GJ46 | RES,22KΩ,1/4W,J;4 |
| R447 | RA*333GJ49 | RES,33KΩ,1/4W,J;4 |
| R448 | RA*393GJ41 | RES,39KΩ,1/4W,J;4 |
| R449 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R451 | RA*104EJ24 | RES,100KΩ,1/6W,J;2 |
| R452 | RA*474GJ41 | RES,470KΩ,1/4W,J;4 |
| R453 | RA*472GJ45 | RES,4.7KΩ,1/4W,J;4 |
| R455 | RA*102GJ48 | RES,1KΩ,1/4W,J;4 |
| R456 | RA*105GJ47 | RES,1MΩ,1/4W,J;4 |
| R457 | RA*392EJ28 | RES,3.9KΩ,1/6W,J;2 |
| R458 | RA*222EJ23 | RES,2.2KΩ,1/6W,J;2 |
| R459 | RA*104GJ44 | RES,100KΩ,1/4W,J;4 |
| R460 | RA*102GJ48 | RES,1KΩ,1/4W,J;4 |
| R461 | RA*224GJ49 | RES,220KΩ,1/4W,J;4 |
| R463 | RA*473GJ48 | RES,47KΩ,1/4W,J;4 |
| R464 | RA*224GJ49 | RES,220KΩ,1/4W,J;4 |
| R465 | RA*563GJ47 | RES,56KΩ,1/4W,J;4 |
| R466 | RA*123GJ45 | RES,12KΩ,1/4W,J;4 |
| R467 | RA*332GJ46 | RES,3.3KΩ,1/4W,J;4 |
| R468 | RA*102GJ48 | RES,1KΩ,1/4W,J;4 |
| R471 | RA*392GJ48 | RES,3.9KΩ,1/4W,J;4 |
| R476 | RA*272EJ23 | RES,2.7KΩ,1/6W,J;2 |
| R477 | RA*104EJ24 | RES,100KΩ,1/6W,J;2 |
| R478 | RA*104EJ24 | RES,100KΩ,1/6W,J;2 |
| R479 | RA*103GJ41 | RES,10KΩ,1/4W,J;4 |
| R480 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R481 | RA*332GJ46 | RES,3.3KΩ,1/4W,J;4 |
| R482 | RA*220GJ47 | RES,22Ω,1/4W,J;4 |
| R483 | RA:221IJ48 | RES,220Ω,1/2W,J;4 |
| R484 | RC*22C2JS8 | RES(M),2.2Ω,2W,J;S |
| R484(substitute) | RC*24C2JS2 | RES(M),2.4Ω,2W,J;S |
| R485 | RA*471GJ42 | RES,470Ω,1/4W,J;4 |
| R486 | RC*1832JS9 | RES(M),18KΩ,2W,J;S |
| R487 | RC*1002JS4 | RES(M),10Ω,2W,J;S |
| R488 | RA*103GJ41 | RES,10KΩ,1/4W,J;4 |
| R489 | RA*331GJ43 | RES,330Ω,1/4W,J;4 |
| R490 | RA*122GJ42 | RES,1.2KΩ,1/4W,J;4 |
| R491 | RA*392GJ48 | RES,3.9KΩ,1/4W,J;4 |
| R492 | RA*123GJ45 | RES,12KΩ,1/4W,J;4 |
| R493 | RC*1542JS6 | RES(M),150KΩ,2W,J;S |
| R494 | RA*470GJ49 | RES,47Ω,1/4W,J;4 |
| R495 | RC*1002JS4 | RES(M),10Ω,2W,J;S |
| R496 | RA:33CIJ47 | RES,3.3Ω,1/2W,J;4 |
| R497 | RA*102GJ48 | RES,1KΩ,1/4W,J;4 |
| R498 | RA*101GJ45 | RES,100Ω,1/4W,J;4 |
| R499 | RC*50R1JS8 | RES(M),0.5Ω,1W,J;S |
| R501 | RC*1231JS3 | RES(M),12KΩ,1W,J;S |
| R502 | RA:474IJ49 | RES,470KΩ,1/2W,J;4 |
| R503 | RA*203GJ42 | RES,20KΩ,1/4W,J;4 |
| R504 | RA*102GJ48 | RES,1KΩ,1/4W,J;4 |
| R505 | RA*822GJ49 | RES,8.2KΩ,1/4W,J;4 |
| R506 | RA*472GJ45 | RES,4.7KΩ,1/4W,J;4 |
| R507 | RA*332GJ46 | RES,3.3KΩ,1/4W,J;4 |
| R508 | RA*332GJ46 | RES,3.3KΩ,1/4W,J;4 |

| Position | Parts No. | Description |
|---|---|---|
| R511 | RA*10CGJ41 | RES,1Ω,1/4W,J;4 |
| R512 | RA*750GJ48 | RES,75Ω,1/4W,J;4 |
| R513 | RA*105GJ47 | RES,1MΩ,1/4W,J;4 |
| R514 | RA:224IJ47 | RES,220KΩ,1/2W,J;4 |
| R515 | RA*103GJ41 | RES,10KΩ,1/4W,J;4 |
| R516 | RA*682GJ49 | RES,6.8KΩ,1/4W,J;4 |
| R517 | RA*102GJ48 | RES,1KΩ,1/4W,J;4 |
| R518 | RA*124GJ48 | RES,120KΩ,1/4W,J;4 |
| R519 | RA*473GJ48 | RES,47KΩ,1/4W,J;4 |
| R520 | RA*224GJ49 | RES,220KΩ,1/4W,J;4 |
| R522 | RA*472EJ25 | RES,4.7KΩ,1/6W,J;2 |
| R523 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R524 | RA*102GJ48 | RES,1KΩ,1/4W,J;4 |
| R525 | RA*123GJ45 | RES,12KΩ,1/4W,J;4 |
| R527 | RA*683GJ42 | RES,68KΩ,1/4W,J;4 |
| R528 | JW060063*8 | JUMPER WIRE AUTO 0.6*15mm |
| R529 | RA*103GJ41 | RES,10KΩ,1/4W,J;4 |
| R532 | RA*334GJ42 | RES,330KΩ,1/4W,J;4 |
| R533 | RA*473GJ48 | RES,47KΩ,1/4W,J;4 |
| R537 | RA*561EJ21 | RES,560Ω,1/6W,J;2 |
| R538 | RA*104GJ44 | RES,100KΩ,1/4W,J;4 |
| R539 | RA*682GJ49 | RES,6.8KΩ,1/4W,J;4 |
| R540 | RA*102GJ48 | RES,1KΩ,1/4W,J;4 |
| R541 | RA*472GJ45 | RES,4.7KΩ,1/4W,J;4 |
| R542 | RA:221IJ48 | RES,220Ω,1/2W,J;4 |
| R543 | RA*224GJ49 | RES,220KΩ,1/4W,J;4 |
| R544 | RA*104GJ44 | RES,100KΩ,1/4W,J;4 |
| R601 | RA*750GJ48 | RES,75Ω,1/4W,J;4 |
| R602 | RA*750GJ48 | RES,75Ω,1/4W,J;4 |
| R603 | RA*750GJ48 | RES,75Ω,1/4W,J;4 |
| R604 | RA*330GJ40 | RES,33Ω,1/4W J.4 |
| R605 | RA*330EJ20 | RES,33Ω,1/6W,J;2 |
| R606 | RA*330GJ40 | RES,33Ω,1/4W J.4 |
| R607 | RA*333GJ49 | RES,33KΩ,1/4W,J;4 |
| R608 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R610 | RA*124GJ48 | RES,120KΩ,1/4W,J;4 |
| R611 | RA*223GJ46 | RES,22KΩ,1/4W,J;4 |
| R614 | RA*104GJ44 | RES,100KΩ,1/4W,J;4 |
| R615 | LC12035C52 | BEAD CORE 3.5*4.5 |
| R615 | RA*102GJ48 | RES,1KΩ,1/4W,J;4 |
| R617 | RA*471GJ42 | RES,470Ω,1/4W,J;4 |
| R618 | RA*471GJ42 | RES,470Ω,1/4W,J;4 |
| R619 | RA*471GJ42 | RES,470Ω,1/4W,J;4 |
| R620 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R621 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R622 | RA*472GJ45 | RES,4.7KΩ,1/4W,J;4 |
| R623 | RA*472GJ45 | RES,4.7KΩ,1/4W,J;4 |
| R624 | RA*472GJ45 | RES,4.7KΩ,1/4W,J;4 |
| R625 | RA*100GJ42 | RES,10Ω,1/4W,J;4 |
| R627 | RA*100GJ42 | RES,10Ω,1/4W,J;4 |
| R628 | RA*102GJ48 | RES,1KΩ,1/4W,J;4 |
| R629 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R630 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R633 | RA*561GJ41 | RES,560Ω,1/4W,J;4 |
| R634 | RA*104EJ24 | RES,100KΩ,1/6W,J;2 |
| R635 | RA*104GJ44 | RES,100KΩ,1/4W,J;4 |
| R636 | RA*472GJ45 | RES,4.7KΩ,1/4W,J;4 |
| R637 | RA*220GJ47 | RES,22Ω,1/4W,J;4 |
| R638 | RA*561GJ41 | RES,560Ω,1/4W,J;4 |
| R639 | RA*222EJ23 | RES,2.2KΩ,1/6W,J;2 |
| R640 | RA*102GJ48 | RES,1KΩ,1/4W,J;4 |
| R642 | RA*220GJ47 | RES,22Ω,1/4W,J;4 |
| R643 | RA*561GJ41 | RES,560Ω,1/4W,J;4 |
| R647 | RA*220GJ47 | RES,22Ω,1/4W,J;4 |
| R648 | RA*563GJ47 | RES,56KΩ,1/4W,J;4 |
| R649 | RA*682GJ49 | RES,6.8KΩ,1/4W,J;4 |
| R650 | RA*334GJ42 | RES,330KΩ,1/4W,J;4 |
| R651 | RA*104GJ44 | RES,100KΩ,1/4W,J;4 |
| R652 | RA*334EJ22 | RES,330KΩ,1/6W,J;2 |

| Position | Parts No. | Description |
|---|---|---|
| R117 | RA*223GJ46 | RES,22KΩ,1/4W,J;4 |
| R118 | RA*470GJ49 | RES,47Ω,1/4W,J;4 |
| R119 | RA*472GJ45 | RES,4.7KΩ,1/4W,J;4 |
| R120 | RM*22R2JZ5 | RES,0.22Ω,2W,J;Z |
| R121 | RA*102GJ48 | RES,1KΩ,1/4W,J;4 |
| R122 | RA:470IJ47 | RES,47Ω,1/2W,J;4 |
| R123 | RA*750GJ48 | RES,75Ω,1/4W,J;4 |
| R124 | RA*223GJ46 | RES,22KΩ,1/4W,J;4 |
| R125 | RC*5102JS0 | RES(M),51Ω,2W,J;S |
| R126(substitute) | RC*5102JK2 | RES(M),51Ω,2W,J;K |
| R127 | RA*471GJ42 | RES,470Ω,1/4W,J;4 |
| R128 | RA:475IJ42 | RES,4.7MΩ,1/2W,J;4 |
| R129 | RA*10CGJ41 | RES,1Ω,1/4W,J;4 |
| R201 | RA*102GJ48 | RES,1KΩ,1/4W,J;4 |
| R202 | RA*221GJ40 | RES,220Ω,1/4W,J;4 |
| R203 | RA*331GJ43 | RES,330Ω,1/4W,J;4 |
| R204 | RA*331GJ43 | RES,330Ω,1/4W,J;4 |
| R206 | RA*102GJ48 | RES,1KΩ,1/4W,J;4 |
| R207 | RA*102GJ48 | RES,1KΩ,1/4W,J;4 |
| R208 | RA*101GJ45 | RES,100Ω,1/4W,J;4 |
| R209 | RA*474GJ41 | RES,470KΩ,1/4W,J;4 |
| R210 | RA*562GJ44 | RES,5.6KΩ,1/4W,J;4 |
| R211 | RA*392GJ48 | RES,3.9KΩ,1/4W,J;4 |
| R212 | RA*392GJ48 | RES,3.9KΩ,1/4W,J;4 |
| R213 | RA*104GJ44 | RES,100KΩ,1/4W,J;4 |
| R214 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R215 | RA*473GJ48 | RES,47KΩ,1/4W,J;4 |
| R216 | RA*473GJ48 | RES,47KΩ,1/4W,J;4 |
| R217 | RA*473GJ48 | RES,47KΩ,1/4W,J;4 |
| R218 | RA*473GJ48 | RES,47KΩ,1/4W,J;4 |
| R219 | RA*473GJ48 | RES,47KΩ,1/4W,J;4 |
| R220 | RA*473GJ48 | RES,47KΩ,1/4W,J;4 |
| R221 | RA*104GJ44 | RES,100KΩ,1/4W,J;4 |
| R222 | RA*104GJ44 | RES,100KΩ,1/4W,J;4 |
| R223 | RA*224GJ49 | RES,220KΩ,1/4W,J;4 |
| R224 | RA*104GJ44 | RES,100KΩ,1/4W,J;4 |
| R225 | RA*105EJ27 | RES,1MΩ,1/6W,J;2 |
| R226 | RA*332GJ46 | RES,3.3KΩ,1/4W,J;4 |
| R227 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R228 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R229 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R230 | RA*103GJ41 | RES,10KΩ,1/4W,J;4 |
| R231 | RA*103GJ41 | RES,10KΩ,1/4W,J;4 |
| R232 | RA*103GJ41 | RES,10KΩ,1/4W,J;4 |
| R233 | RA*472GJ45 | RES,4.7KΩ,1/4W,J;4 |
| R234 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R235 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R236 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R237 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R238 | RA*103GJ41 | RES,10KΩ,1/4W,J;4 |
| R239 | RA*221GJ40 | RES,220Ω,1/4W,J;4 |
| R240 | RA*103EJ21 | RES,10KΩ,1/6W,J;2 |
| R241 | RA*103GJ41 | RES,10KΩ,1/4W,J;4 |
| R242 | RA*472GJ45 | RES,4.7KΩ,1/4W,J;4 |
| R243 | RA*103GJ41 | RES,10KΩ,1/4W,J;4 |
| R244 | RA*103GJ41 | RES,10KΩ,1/4W,J;4 |
| R245 | RA*103GJ41 | RES,10KΩ,1/4W,J;4 |
| R246 | RA*103GJ41 | RES,10KΩ,1/4W,J;4 |
| R247 | RA*103GJ41 | RES,10KΩ,1/4W,J;4 |
| R248 | RA*103GJ41 | RES,10KΩ,1/4W,J;4 |
| R249 | RA*472GJ45 | RES,4.7KΩ,1/4W,J;4 |
| R250 | RA*223GJ46 | RES,22KΩ,1/4W,J;4 |
| R251 | RA*223GJ46 | RES,22KΩ,1/4W,J;4 |
| R252 | RA*223GJ46 | RES,22KΩ,1/4W,J;4 |
| R253 | RA*223GJ46 | RES,22KΩ,1/4W,J;4 |
| R254 | RA*223GJ46 | RES,22KΩ,1/4W,J;4 |
| R255 | RA*103GJ41 | RES,10KΩ,1/4W,J;4 |
| R256 | RA*471GJ42 | RES,470Ω,1/4W,J;4 |
| R257 | RA*331GJ43 | RES,330Ω,1/4W,J;4 |
| R258 | RA*472GJ45 | RES,4.7KΩ,1/4W,J;4 |
| R260 | RA*471GJ42 | RES,470Ω,1/4W,J;4 |
| R261 | RA:102IJ46 | RES,1KΩ,1/2W,J;4 |
| R262 | RA*103GJ41 | RES,10KΩ,1/4W,J;4 |
| R263 | RA*102GJ48 | RES,1KΩ,1/4W,J;4 |
| R264 | RA*102GJ48 | RES,1KΩ,1/4W,J;4 |
| R265 | RA*471GJ42 | RES,470Ω,1/4W,J;4 |
| R266 | RA*100GJ42 | RES,10Ω,1/4W,J;4 |
| R301 | RC*47C2JS0 | RES(M),4.7Ω,2W,J;S |
| R301 | RC*47C2JS0 | RES(M),4.7Ω,2W,J;S |
| R302 | RA*124GJ48 | RES,120KΩ,1/4W,J;4 |
| R303 | RA*333GJ49 | RES,33KΩ,1/4W,J;4 |
| R304 | RA*562GJ44 | RES,5.6KΩ,1/4W,J;4 |
| R305 | RA*105EJ27 | RES,1MΩ,1/6W,J;2 |
| R306 | RA*152GJ48 | RES,1.5KΩ,1/4W,J;4 |
| R307 | RC*47C2JS0 | RES(M),4.7Ω,2W,J;S |
| R307 | RC*47C2JS0 | RES(M),4.7Ω,2W,J;S |
| R308 | RA:10CIJ49 | RES,1Ω,1/2W,J;4 |
| R309 | RC*50R1JS8 | RES(M),0.5Ω,1W,J;S |
| R310 | RA:221IJ48 | RES,220Ω,1/2W,J;4 |
| R311 | RA*103GJ41 | RES,10KΩ,1/4W,J;4 |
| R312 | RA*681GJ46 | RES,680Ω,1/4W,J;4 |
| R313 | RA*471GJ42 | RES,470Ω,1/4W,J;4 |
| R314 | RA*471GJ42 | RES,470Ω,1/4W,J;4 |
| R316 | RA*103GJ41 | RES,10KΩ,1/4W,J;4 |
| R317 | RA*471GJ42 | RES,470Ω,1/4W,J;4 |
| R318 | RA*333GJ49 | RES,33KΩ,1/4W,J;4 |
| R319 | RA*103GJ41 | RES,10KΩ,1/4W,J;4 |
| R320 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R322 | RA*221GJ40 | RES,220Ω,1/4W,J;4 |
| R323 | RA*102GJ48 | RES,1KΩ,1/4W,J;4 |
| R324 | RA*104EJ24 | RES,100KΩ,1/6W,J;2 |
| R325 | RA*222EJ23 | RES,2.2KΩ,1/6W,J;2 |
| R326 | RA*103EJ21 | RES,10KΩ,1/6W,J;2 |
| R327 | RA*222EJ23 | RES,2.2KΩ,1/6W,J;2 |
| R328 | RA*183EJ27 | RES,18KΩ,1/6W,J;2 |
| R329 | RA*153EJ21 | RES,15KΩ,1/6W,J;2 |
| R401 | RA*10CGJ41 | RES,1Ω,1/4W,J;4 |
| R402 | RA*101GJ45 | RES,100Ω,1/4W,J;4 |
| R403 | RA*221EJ20 | RES,220Ω,1/6W,J;2 |
| R404 | DN41487114 | DIODE 1N4148 (ROHM) 52mm |
| R404(substitute) | DN41480211 | DIODE 1N4148 (NS) |
| R404(substitute) | DN41482819 | DIODE 1N4148 (TFK) |
| R404(substitute) | DN41483118 | DIODE 1N4148 |
| R405 | RA*331GJ43 | RES,330Ω,1/4W,J;4 |
| R406 | RC*1002JS4 | RES(M),10Ω,2W,J;S |
| R407 | RC*1002JS4 | RES(M),10Ω,2W,J;S |
| R408 | RC*22R1JS9 | RES(M),0.22Ω,1W,J;S |
| R409 | RA*220GJ47 | RES,22Ω,1/4W,J;4 |
| R410 | RC*47C2JS0 | RES(M),4.7Ω,2W,J;S |
| R411 | RA*561GJ41 | RES,560Ω,1/4W,J;4 |
| R412 | RA*471GJ42 | RES,470Ω,1/4W,J;4 |
| R413 | RA*123EJ25 | RES,12KΩ,1/6W,J;2 |
| R413 | RA*123GJ45 | RES,12KΩ,1/4W,J;4 |
| R414 | RA*473GJ48 | RES,47KΩ,1/4W,J;4 |
| R415 | RA*563GJ47 | RES,56KΩ,1/4W,J;4 |
| R416 | RA*683GJ42 | RES,68KΩ,1/4W,J;4 |
| R417 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R418 | RA*681GJ46 | RES,680Ω,1/4W,J;4 |
| R419 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R420 | RA*472GJ45 | RES,4.7KΩ,1/4W,J;4 |
| R421 | RA*103GJ41 | RES,10KΩ,1/4W,J;4 |
| R422 | RA*103GJ41 | RES,10KΩ,1/4W,J;4 |
| R423 | RA*221EJ20 | RES,220Ω,1/6W,J;2 |
| R424 | RA*392GJ48 | RES,3.9KΩ,1/4W,J;4 |
| R425 | RA*152GJ48 | RES,1.5KΩ,1/4W,J;4 |
| R426 | RA*273EJ26 | RES,27KΩ,1/6W,J;2 |
| R427 | RA*333GJ49 | RES,33KΩ,1/4W,J;4 |
| R428 | RA*393GJ41 | RES,39KΩ,1/4W,J;4 |

| Position | Parts No. | Description |
|---|---|---|
| R653 | RA*124GJ48 | RES,120KΩ,1/4W,J;4 |
| R654 | RA*154GJ44 | RES,150KΩ,1/4W,J;4 |
| R656 | RA*334EJ22 | RES,330KΩ,1/6W,J;2 |
| R657 | RA*124GJ48 | RES,120KΩ,1/4W,J;4 |
| R658 | RA*154GJ44 | RES,150KΩ,1/4W,J;4 |
| R701 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R702 | RA*473EJ28 | RES,47KΩ,1/6W,J;2 |
| R703 | RA*473GJ48 | RES,47KΩ,1/4W,J;4 |
| R704 | RA*101GJ45 | RES,100Ω,1/4W,J;4 |
| R705 | RA*473GJ48 | RES,47KΩ,1/4W,J;4 |
| R706 | RA*101GJ45 | RES,100Ω,1/4W,J;4 |
| R801 | RC*10C1JS9 | RES(M),1Ω,1W,J;S |
| R802 | RA:470IJ47 | RES,47Ω,1/2W,J;4 |
| R803 | RA:224IJ47 | RES,220KΩ,1/2W,J;4 |
| R804 | RA*101GJ45 | RES,100Ω,1/4W,J;4 |
| R805 | RA*100GJ42 | RES,10Ω,1/4W,J;4 |
| R806 | RA*152GJ48 | RES,1.5KΩ,1/4W,J;4 |
| R807 | RA*820GJ43 | RES,82Ω,1/4W,J;4 |
| R808 | RA*330GJ40 | RES,33Ω,1/4W J,4 |
| R809 | RA*220GJ47 | RES,22Ω,1/4W,J;4 |
| R810 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R811 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R812 | RC*2723JU1 | RES(M),2.7KΩ,3W,J;U |
| R813 | RC*2723JU1 | RES(M),2.7KΩ,3W,J;U |
| R814 | RC*2723JU1 | RES(M),2.7KΩ,3W,J;U |
| R815 | RA*273GJ46 | RES,27KΩ,1/4W,J;4 |
| R816 | RA*472GJ45 | RES,4.7KΩ,1/4W,J;4 |
| R817 | RA*105GJ47 | RES,1MΩ,1/4W,J;4 |
| R818 | RA*330GJ40 | RES,33Ω,1/4W J,4 |
| R819 | RA*101GJ45 | RES,100Ω,1/4W,J;4 |
| R820 | RA*100GJ42 | RES,10Ω,1/4W,J;4 |
| R821 | RA*152GJ48 | RES,1.5KΩ,1/4W,J;4 |
| R822 | RA*820GJ43 | RES,82Ω,1/4W,J;4 |
| R823 | RA*330GJ40 | RES,33Ω,1/4W J,4 |
| R824 | RA*220GJ47 | RES,22Ω,1/4W,J;4 |
| R825 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R826 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R827 | RC*2723JU1 | RES(M),2.7KΩ,3W,J;U |
| R828 | RC*2723JU1 | RES(M),2.7KΩ,3W,J;U |
| R829 | RC*2723JU1 | RES(M),2.7KΩ,3W,J;U |
| R830 | RA*472GJ45 | RES,4.7KΩ,1/4W,J;4 |
| R831 | RA*273GJ46 | RES,27KΩ,1/4W,J;4 |
| R832 | RA*105GJ47 | RES,1MΩ,1/4W,J;4 |
| R833 | RA*330GJ40 | RES,33Ω,1/4W J,4 |
| R834 | RA*101GJ45 | RES,100Ω,1/4W,J;4 |
| R835 | RA*100GJ42 | RES,10Ω,1/4W,J;4 |
| R836 | RA*152GJ48 | RES,1.5KΩ,1/4W,J;4 |
| R837 | RA*820GJ43 | RES,82Ω,1/4W,J;4 |
| R838 | RA*330GJ40 | RES,33Ω,1/4W J,4 |
| R839 | RA*220GJ47 | RES,22Ω,1/4W,J;4 |
| R840 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R841 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R842 | RC*2723JU1 | RES(M),2.7KΩ,3W,J;U |
| R843 | RC*2723JU1 | RES(M),2.7KΩ,3W,J;U |
| R844 | RC*2723JU1 | RES(M),2.7KΩ,3W,J;U |
| R845 | RA*472GJ45 | RES,4.7KΩ,1/4W,J;4 |
| R846 | RA*273GJ46 | RES,27KΩ,1/4W,J;4 |
| R847 | RA*105GJ47 | RES,1MΩ,1/4W,J;4 |
| R848 | RA*330GJ40 | RES,33Ω,1/4W J,4 |
| R849 | RA*222GJ43 | RES,2.2KΩ,1/4W,J;4 |
| R850 | RA*472GJ45 | RES,4.7KΩ,1/4W,J;4 |
| RL101 | WJ211B2H*2 | RELAY DC12V 5A (JW2HN-DC12V) |
| RL101(substitute) | WJ211B0I*9 | RELAY DC12V 60mA |
| RL401 | WJ211B2H*2 | RELAY DC12V 5A (JW2HN-DC12V) |
| RL401(substitute) | WJ211B0I*9 | RELAY DC12V 60mA |
| RL402 | WJ111B2H23 | RELAY 12V 5A (MATSUSHITA) |

| Position | Parts No. | Description |
|---|---|---|
| SK101 | 1T0T2N23NB | BRACKET REAR SECC T=1.0mm DL-17MU/DH-17M |
| SK101 | 2S002N16A7 | HOT-SHRINKING TUBE φ2*10mm |
| SK101 | BSA10300*2 | AC SOCKET 3P PF-125 |
| SK101 | BUA1000011 | STEREO JACK+NUT 3.5φ STEREO JACK |
| SK101 | KEB3QB1027 | 3P WIRE 150mm UL2791#28 |
| SK101 | KQ1500W0I0 | BRAID WIRE 150mm+4.3φ GND |
| SK101 | KW2050619 | WIRE 205mm BLACK UL1015# 22+4.3φ |
| SK101 | LC15212C17 | RI CORE 21.2*6*12.7 |
| SK101 | NEBUA10001 | STEREO INPUT JACK ASS'Y |
| SK101 | NESOCKET03 | AC SOCKET ASS'Y |
| SK101 | WR112E2J*0 | ROCKER SW 1P-1T 6A/25V |
| SK101 AC SOCKET ASS'Y | 3L0K2A09N2 | BACK PLATE DH-1764 PC T=0.3mm |
| SK101 FOR SOCKET G. - BKT | KW10005GI4 | WIRE 100mm G/Y UL1015# 18+4.3φ |
| SK101 FOR SOCKET L - SW | KW09009209 | WIRE 90mm BR UL1617#22 +6φ/8φ HOT-SHRINK TUBE |
| SK101 FOR SOCKET - PCB | KW08009725 | WIRE 80mm BLU UL1617#2 2HOOK+8φ HOT-SHRINK TUBE |
| SK101 FOR SW - PCB | KW08009220 | WIRE 80mm BR UL1617#2 2HOOK+6φ HOT-SHRINK TUBE |
| SK101 VIDEO CABLE*1 | 4T308N01N4 | SCREW TAP #3*8mm NI W/H |
| SK101 use for SAFETY GND | 4T004N05N3 | WASHER STAR ID/4# |
| SK101 use for SAFETY GND | 4T408N03N5 | SCREW ISO #4*8mm NI |
| SK101 use for SAFETY OTHER | 4T004N05N3 | WASHER STAR ID/4# |
| SK101 use for SAFETY OTHER | 4T408N03N5 | SCREW ISO #4*8mm NI |
| SK801 | BSCB09*619 | CRT SOCKET 9 PIN (DOUBLE FOCUS) |
| SP803 | CS0103C*Z0 | SPARK CAP.1PF/1.5KV AG15 |
| SP804 | CS0103C*Z0 | SPARK CAP.1PF/1.5KV AG15 |
| SP805 | CS0103C*Z0 | SPARK CAP.1PF/1.5KV AG15 |
| SW201 | WA411B0H29 | TACT SW SKHH-E01 12V/50mA |
| SW202 | WA411B0H29 | TACT SW SKHH-E01 12V/50mA |
| T101 | TME4207032 | POWER TRANS DH-1764 EE-42 240uH |
| T401 | TDE1907034 | H.D.T 2.8mH DH-1764 |
| T402 | TIE250*012 | DC TO DC TRANS EE-25 136uH/49Ts |
| T403 | TBC000*188 | FBT ETF40L1015AZ DH-1764 |
| T404 | TFE2207011 | DYNAMIC FOCUS 900uH DH-1764 |
| VR101 | VE102RB115 | SVR B-1KΩ 0.3W 6φ |
| VR102 | VE102RB115 | SVR B-1KΩ 0.3W 6φ |
| VR401 | VE503RB111 | SVR B-50KΩ 0.3W 6φ |
| VR403 | VE502RB119 | SVR B-5KΩ 0.3W 6φ |
| VR404 | VE503RB111 | SVR B-50KΩ 0.3W 6φ |
| VR405 | VE503RB111 | SVR B-50KΩ 0.3W 6φ |
| VR601 | VE503RB111 | SVR B-50KΩ 0.3W 6φ |
| VR801 | VH103RB110 | SVR B-10KΩ 0.3W 6φ |
| VR802 | VH103RB110 | SVR B-10KΩ 0.3W 6φ |
| VR803 | VH103RB110 | SVR B-10KΩ 0.3W 6φ |
| W102 | BH2B421018 | BASE 3P 7.92mm (No pin 2) UL94V-0 |
| W201 | BI31211006 | POST HEADER 180° 2.54mm 3PIN (Two pair) |
| W401 | BE2B121019 | BASE 2P 2.5mm(JST) UL94-V0 |
| W402 | BH2B421018 | BASE 3P 7.92mm (No pin 2) UL94V-0 |
| W402 | BH2B421018 | BASE 3P 7.92mm (No pin 2) UL94V-0 |
| W403 | BP41980011 | BASE GT PIN 4P 2.36φ 10*8mm |
| W602 | BE6B121013 | BASE 6P 2.5mm(JST) UL94-V0 |
| W604 | BECB121010 | BASE 12P 2.5mm(JST) UL94-V0 |

# CAUTION:

Before servicing this chassis, read the

"IMPORTANT SERVICE SAFETY INFORMATION"

on next page of this manual.

# CONTENTS

# IMPORTANT SERVICE SAFETY INFORMATION

Operation of monitor outside of cabinet or with back removed involves a shock hazard. Work on these models should only be performed by those who are thoroughly familiar with precautions necessary when working on high voltage equipment.

Exercise care when servicing this chassis with power applied. Many B plus and high voltage RF terminals are exposed which, if carelessly contacted, can cause serious shock or result in damage to the chassis. Maintain interconnecting ground lead connections between chassis and escutcheon picture tube dag when operation chassis.

This monitor has a "polarized" AC line cord.The AC plug is designed to fit into standard AC outlets in one direction only. The wide blade connects the "ground side" and the narrow blade connects to the "hot side" of the AC line. This assures that the monitor is properly grounded to the house wiring. If an extension cord must be used,make sure it is of the "polarized" type.

Since the chassis of this monitor is connected to one side of the AC supply during operation,service should not be attempted by anyone not familiar with the precautions necessary when working on this type of equipment.

When it is necessary to make measurements or tests with AC power applied to the monitor chassis, an Isolation Transformer must be used as a safety precaution and to prevent possible damaged transistors. The Isolation Transformer should be connected between the signal cord plug and the AC power outlet.

Certain HV failures can increase X-ray radiation. Monitors should not be operated with HV levels exceeding the specified rating for their chassis type. The maximum operating HV specified for the chassis used in these monitors is 24kv ± 1.0kv at zero beam current with a line voltage of 110V(220V) AC. Higher voltage may also increase possibility of failure in HV supply.

It is important to maintain specified values of all components in the horizontal and high voltage circuits and anywhere else in the monitor that could cause a rise in high voltage, or operating supply voltages, No changes should be made to the original design of the monitor.

Components shown in the shaded areas on the schematic diagram and/or identified by ⚠ in the replacement parts list should be replaced only with exact Factory recommended replacement parts. The use of unauthorized substitute parts may create a shock, fire , X-radiation, or other hazard.

To determine the presence of high voltage, use an accurate, high impedance, HV meter connected between second anode lead and the CRT dag grounding device. When servicing the High Voltage System remove static charge from it by connecting 10K ohm resistor in series with an insulated wire (such as a test probe) between picture tube dag and 2nd anode lead (AC line cord disconnected from AC supply).

The picture tube used in this monitor employs integral impulsion protection. Replace with tube of the same type number for continued safety. Do not lift picture tube by the neck. Handle the picture tube only when wearing shatterproof goggles and after discharging the high voltage completely. Keep others without shatterproof goggles away.

Before returning the monitor to the user, perform the following safety checks:

1. Inspect all lead dress to make certain that are not pinched or lodged between the chassis and other metal parts in the monitor.

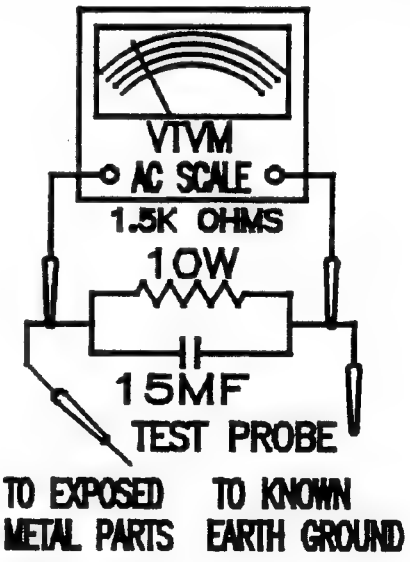
2. Replace all protective devices such as non-metallic control knobs, insulating fish-papers, cabinet backs, adjustment and compartment covers or shields, isolation resistor capacitor networks, mechanical insulators, etc.

3. To be sure that no shock hazard exists, a check for the presence of leakage current should be made at each exposed metal part having a return path to the chassis (cabinet metal,screw heads, knobs and/or shafts, escutcheon, etc.) in the following manner.

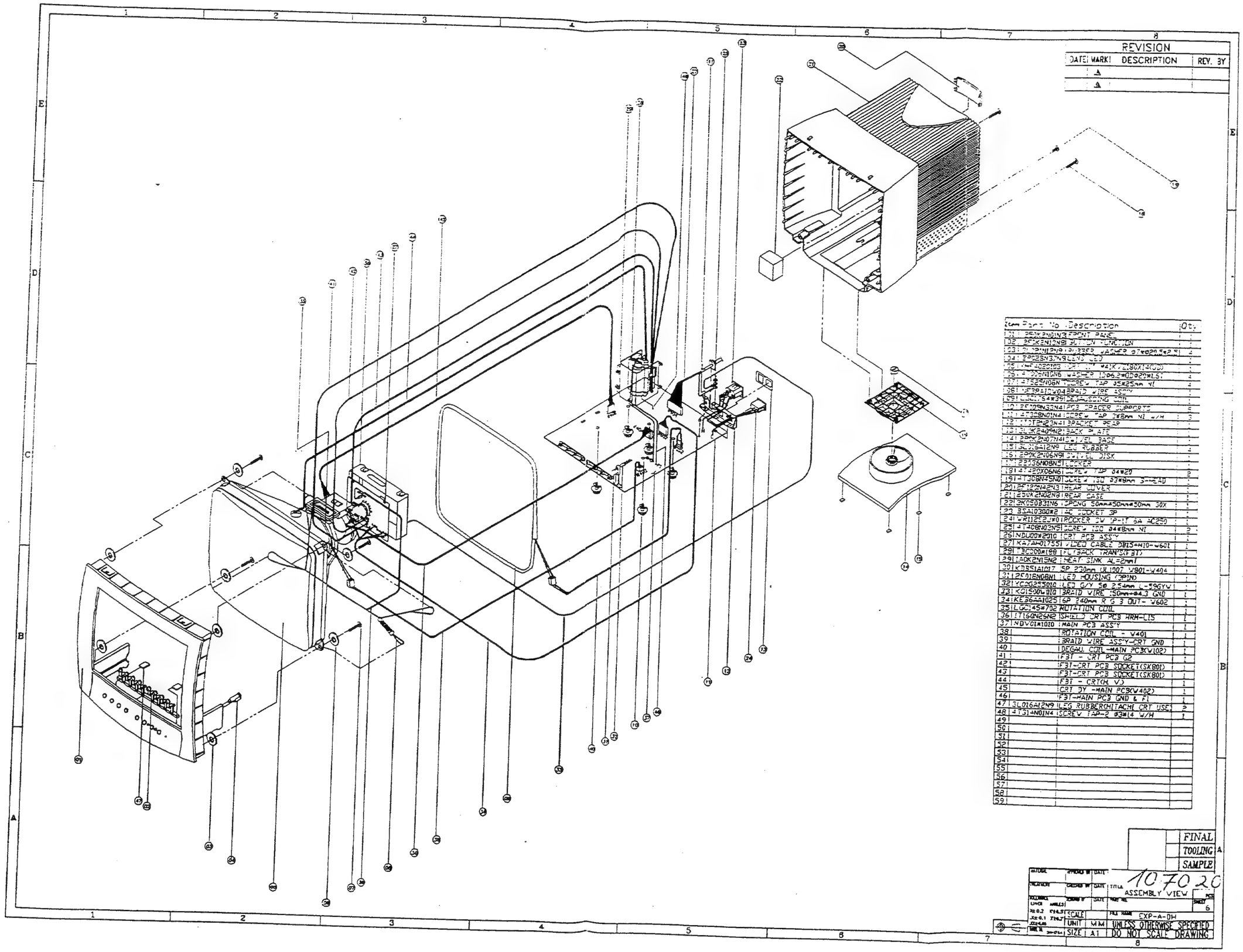
Plug the AC line cord directly into a 110V(220V) AC receptacle. (Do not use an Isolation Transformer during these checks.) All checks must be repeated with the AC line cord plug connection reversed.(If necessary, a non-polarized adapter plug must be used only for the purpose of completing these checks.)

If available, measure current using an accurate leakage current tester. Any reading of 0.35 MA or more is excessive and indicates a potential shock hazard which must be corrected before returning the monitor to the owner.

If a reliable leakage current tester is not available, this alternate method of measurement should be used. Using two clip leads, connect a 1500 ohm, 10 watt resistor paralleled by a 0.15 μF capacitor in series with a known earth ground, such as a water pipe or conduit and the metal part to be checked. Use a VTVM or VOM with 1000 ohms per volt, or higher, sensitivity to measure this AC voltage drop across the resistor. Any reading of 0.35 volt RMS or more is excessive and indicates a potential shock hazard which must be corrected before returning the monitor to the owner.



# EXPLODED VIEW/PARTS LIST



| REVISION | | | |
|---|---|---|---|
| DATE | MARK | DESCRIPTION | REV. BY |
| | A | | |
| | B | | |

| Item | Part No. | Description | Qty |
|---|---|---|---|
| 01 | | FRONT PANEL | 1 |
| 02 | | BUTTON FUNCTION | 1 |
| 03 | | SPACER SUPPORT | 2 |
| 04 | | LED | 1 |
| 05 | | W401 | 1 |
| 06 | | W602 | 1 |
| 07 | | SCREW TAP | 4 |
| 08 | | WIRE ASSY | 1 |
| 09 | | SWITCH | 1 |
| 10 | | SPACER SUPPORT | 2 |
| 11 | | SCREW TAP | 3 |
| 12 | | SPACER | 1 |
| 13 | | BACK PLATE | 1 |
| 14 | | PANEL BASE | 1 |
| 15 | | LEG RUBBER | 1 |
| 16 | | PANEL DISK | 1 |
| 17 | | SCREW | 1 |
| 18 | | SCREW TAP | 2 |
| 19 | | SCREW | 2 |
| 20 | | REAR COVER | 1 |
| 21 | | REAR CASE | 1 |
| 22 | | SPRING | 1 |
| 23 | | AC SOCKET | 1 |
| 24 | | SOCKET | 1 |
| 25 | | CRT PCB ASSY | 1 |
| 26 | | DEG CABLE | 1 |
| 27 | | FLYBACK TRANSFORMER | 1 |
| 28 | | HEAT SINK | 1 |
| 29 | | SP | 1 |
| 30 | | SP | 1 |
| 31 | | HOUSING | 1 |
| 32 | | SOCKET | 1 |
| 33 | | BRAID WIRE | 1 |
| 34 | | SP | 1 |
| 35 | | ROTATION COIL | 1 |
| 36 | | SHIELD CRT PCB | 1 |
| 37 | | MAIN PCB ASSY | 1 |
| 38 | | ROTATION COIL - W401 | 1 |
| 39 | | BRAID WIRE ASSY-CRT GND | 1 |
| 40 | | DEGAU COIL-MAIN PCB(W102) | 1 |
| 41 | | F3T - CRT PCB G2 | 1 |
| 42 | | F3T-CRT PCB SOCKET(SK801) | 1 |
| 43 | | F3T-CRT PCB SOCKET(SK801) | 1 |
| 44 | | F3T - CRT(H.V.) | 1 |
| 45 | | CRT DY -MAIN PCB(W402) | 1 |
| 46 | | F3T-MAIN PCB GND & F1 | 1 |
| 47 | | LEG RUBBER(HITACHI CRT USE) | 3 |
| 48 | | SCREW TAP-P | 1 |
| 49 | | | |
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FINAL
TOOLING
SAMPLE

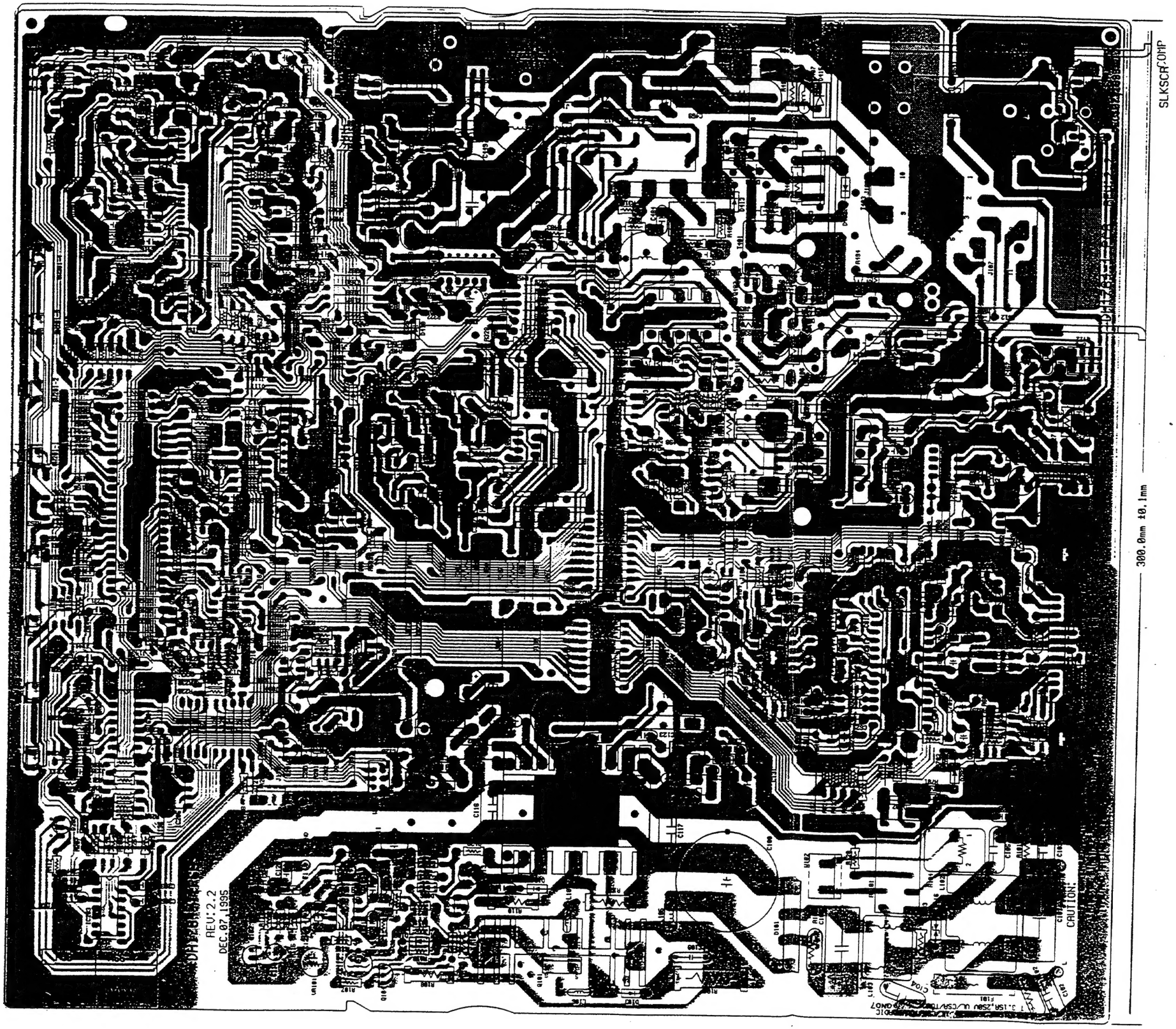
1070 20

ASSEMBLY VIEW

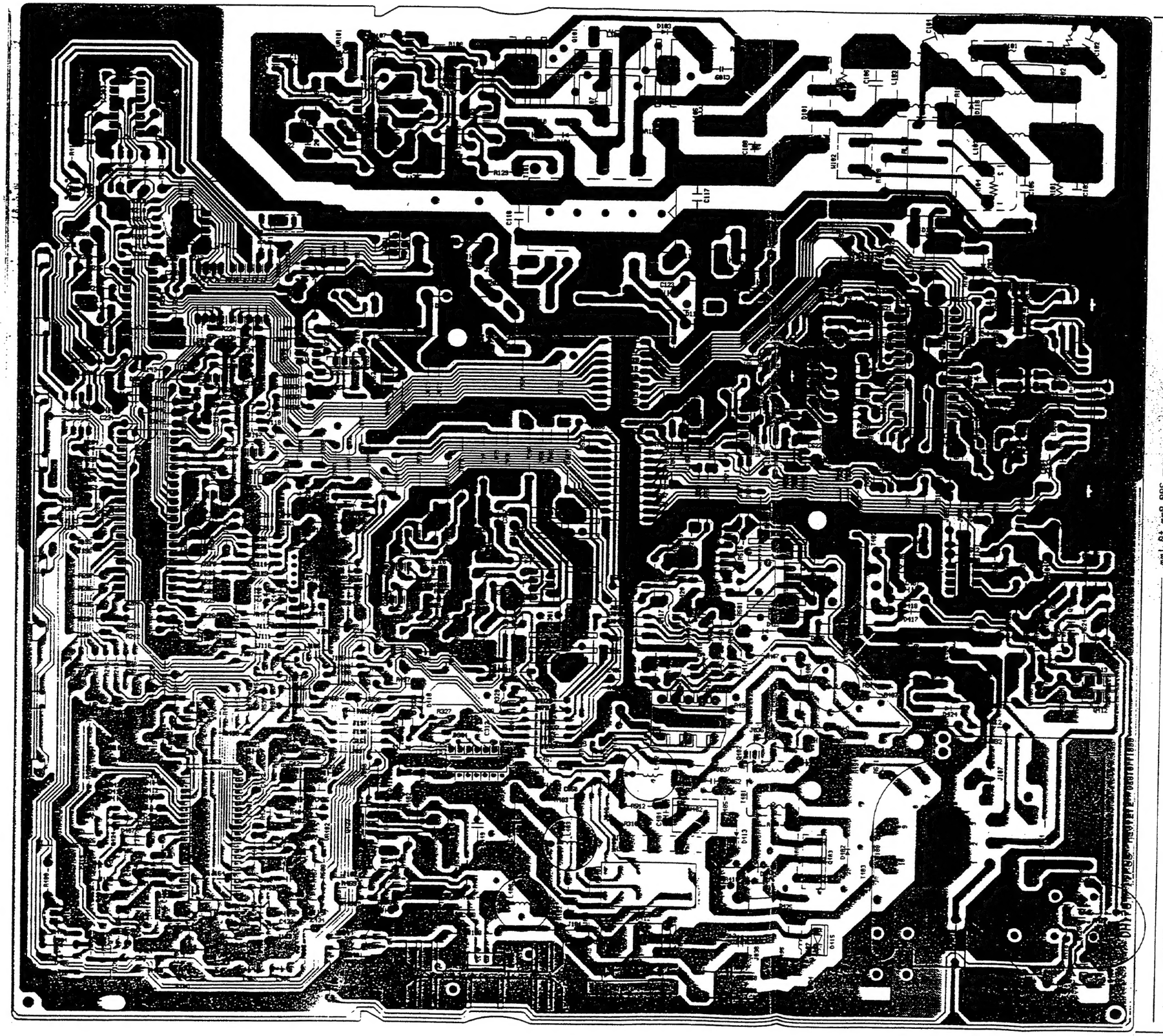
EXP-A-DH

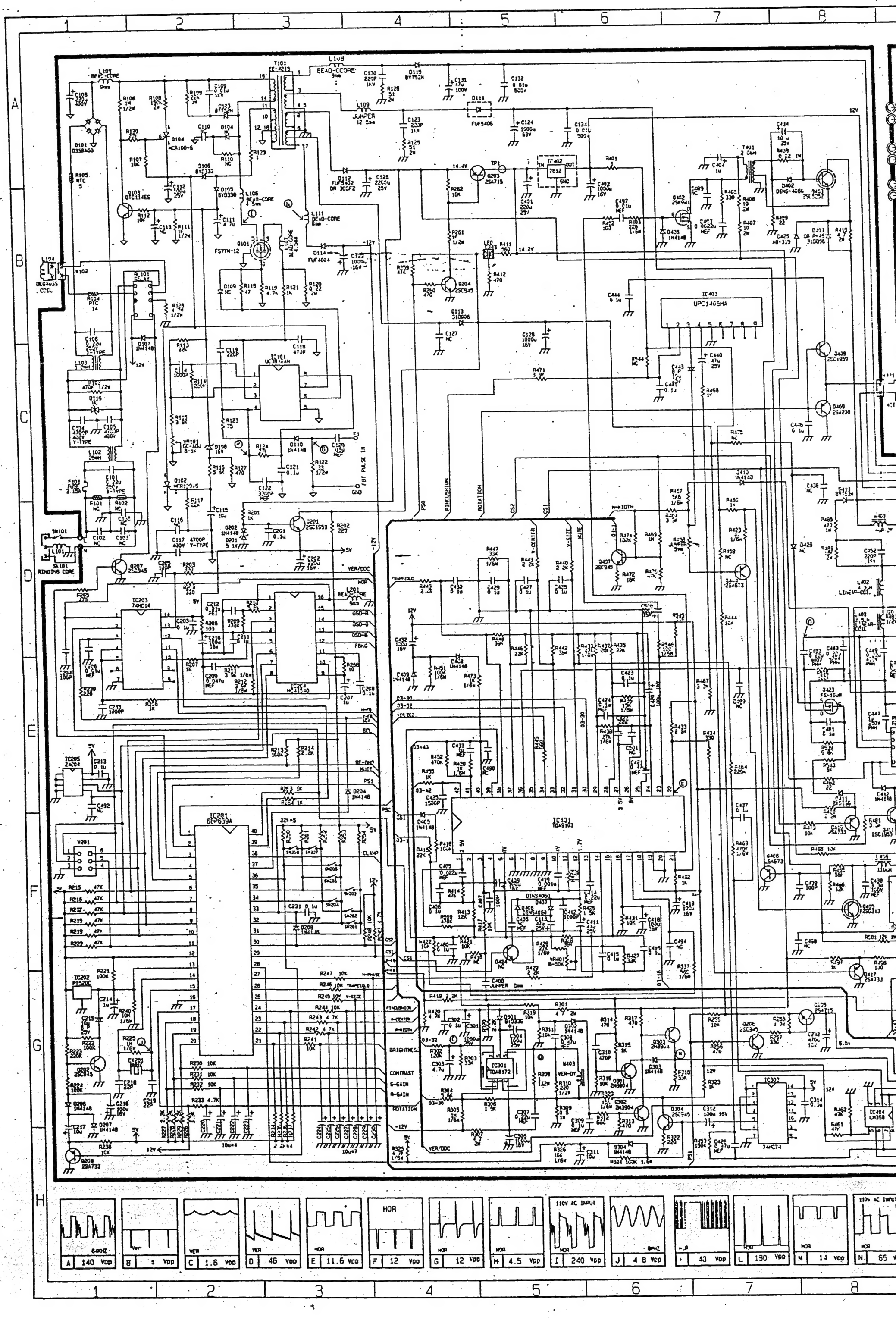
UNLESS OTHERWISE SPECIFIED
DO NOT SCALE DRAWING

MAIN BOARD TOP



MAIN BOARD BOTTOM




T101 RE-4215
L108 BEAD-CORE 9mm
L109 BEAD-CORE 9mm
L109 JUMPER 12.5mm
D111 FUF5406
D112 FUF5402 OR 30CF2
D114 FUF4004
L111 BEAD-CORE 6mm
L106 BEAD-CORE 4.5mm
L107 BEAD-CORE 4.5mm
L104 DEGAUSS COIL
L101 RELAY
SW101 RINGING CORE
Q101 FS7TM-12
Q103 DTC114ES
Q104 MCR100-6
Q102 MCR100-6
Q201 5.1V
Q202 1N4148
Q203 2SA715
Q204 2SC945
Q207 2SC945
Q208 2SA733
Q209 2SC945
Q301 B1033G
Q302 2N3904
Q303 2N3904
Q304 2SC945
Q401 2SK941
Q402 DTNS-4060
Q403 2SA673
Q404 2SC1959
Q405 2SA733
Q406 SA673
Q407 2SC945
Q408 2SC1959
Q409 2SA733
IC101 UC3842AN
IC201 6EP639A
IC202 PT520C
IC203 74HC14
IC204 MC14490
IC205 24C04
IC301 TDA8172
IC303 74HC74
IC401 TDA9103
IC402 7812
IC403 UPC1405HA
IC404 LM358
T401
VR101 B-1K
VR201 B-1K
VR301 B-50K
VR401 B-50K
TP1
12V
14.4V
14.2V
5V
-12V
8.5V
PS0
PS1
PS2
CS1
CS2
PINCUSHION
ROTATION
V-CENTER
V-SIZE
KEY
BRIGHTNESS
CONTRAST
G-GAIN
B-GAIN
VER/DOC
HOR
CLAMP
FBT PULSE IN
RE-GND
MUTE
SCL
SDA
FBAG
110V AC INPUT
A 140 VDD
B 5 VDD
C 1.6 VDD
D 46 VDD
E 11.6 VDD
F 12 VDD
G 12 VDD
H 4.5 VDD
I 240 VDD
J 4.8 VDD
K 40 VDD
L 190 VDD
M 14 VDD
N 65 V

| ITEM / CRT TYPE | HITACHI M41KVZ180*14 | PANASONIC M41KXH100*02 | HITACHI M41KNB140*14 | |
|---|---|---|---|---|
| F B.T. | PIN 10 | PIN 10 | PIN 10 | |
| R529 | JUMPER | 0.5 1W | 1 5 1W | |
| WJ02 | 2PIN BASE | JUMPER | 2PIN BASE | |
| WJ02 | CANCELING COIL | NC | CANCELING COIL | |
| T403 | TBC003*188 | TBC003*194 | TBC000*188 | |
| C449 | 0 22u 400V | 0 27u 400V | 0 22u 400V | |
| C434 | NC | 100u 35V | NC | |
| C482 | 0 22u 400V | 0 27u 400V | 0 22u 400V | |
| D434 | 1N4148 | NC | 1N4148 | |
| R415 | 56K 1/4W | NC | 56K 1/4W | |
| L405 | 110uH | 35uH | 110uH | |
| R509 | NC | 330K 1/4W | NC | |
| C435 | 4700p | 0 01u | 4700p | |
| R493 | 0.5 1W | 0 33 1W | 0 5 1W | |

| H-FREQ | CS1 | CS2 | PS0 | PS1 |
|---|---|---|---|---|
| H <29KHZ | * | * | 0 | 0 |
| 29KHZ< H <33KHZ | 1 | 1 | 1 | 1 |
| 33KHZ< H <43KHZ | 1 | 0 | 1 | 1 |
| 43KHZ< H <58.5KHZ | 0 | 1 | 1 | 1 |
| 58.5KHZ< H <68KHZ | 0 | 0 | 1 | 1 |
| 68KHZ< H | * | * | 0 | 0 |

NOTE.

(1) All values of resistors are in Ohms ; 1/4 wattages ; +/- 5% .except specified notes on diagrams.

(2) All values of capacitors are in "Farads".

(3) The value of electrolytic capacitors are 50 volts rating .except specified notes on diagrams (E.C SYM ⏚)

(4) The value of c.c are 50 volts rating .except specified notes on diagrams. (C.C SYM ⏚)

(5) The chasssis ground is indicated as ⏚

(6) The Zener diodes are 1/2 wattages type.

(7) The varied resistor are +/- 20% 1/2 wattages type.

| | | | | | |
|---|---|---|---|---|---|
| H | 14 VDD | N | 65 VDD | O | 190 VDD |
| P | 3 VDD | G | 4 VDD | F | 6 VDD |

110v AC INPUT

10 70 20

| | | | |
|---|---|---|---|
| MODEL: DH-1764 | SHEET NO.. | DESIGN | DRAWING |
| ITEM: MAIN/CRT DATE: MAR.20, 1997 | PREPARE | S.H.WEN | L.K.CHIE |
| FILE NAME: DH1764 SCH REV: 2.1 | CHECKED | W.L Lin | Tsai-M |
| ECN NO: | APPROVED | | |

RCEM013